









Letter of Transmittal

DATE: December 28, 2011

TO: Toll Bridge Program Oversight Committee

(TBPOC)

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – January 5, 2012

Herewith is the <u>TBPOC Meeting Materials Packet</u> for the January 5th meeting. The packet includes memoranda and reports that will be presented at the meeting. A <u>Table of Contents</u> is provided following the <u>Agenda</u> to help locate specific topics.



TBPOC MEETING

January 5, 2012 10:00am – 1:00pm Mission Bay Office, Oakland

TBPOC-PMT pre-briefing: 10:00am - 11:00am TBPOC meeting: 11:00am - 1:00pm

| | Topic | Presenter | Time | Desired Outcome |
|----|--|---|--------|-----------------------|
| 1. | CHAIR'S REPORT | S. Heminger, BATA | 5 min | Information |
| 2. | consent calendar a. TBPOC Meeting Minutes: 1) December 1, 2011 Meeting Minutes* | A. Fremier, BATA | | Approval |
| | b. Contract Change Orders (CCOs): 1) YBITS1 CCO 529 (Oakland Detour Westbound Structure)* 2) YBITS1 CCO 547 (Oakland Detour Westbound Bridge Jacking)* 3) YBITS1 CCO 549 (Oakland Detour Westbound Bridge Closure – Portable CMS)* 4) YBITS1 CCO 100-S1 (Hinge K Steel Barrier | T. Anziano, CT | | Approval Information |
| | Plate Modifications)* | | | Information |
| 3. | PROGRESS REPORTS a. Draft Project Progress and Financial Update December 2011 ** | P. Lee, BATA | 5 min | Approval |
| | b. FHWA 2011 Annual Report* | T. Anziano, CT/ P. Lee, BATA | 5 min | Approval |
| 4. | PROGRAM ISSUES | | | |
| | a. Bridge Commemorative Stamp and Coin Proposal* | T. Anziano, CT | 10 min | Approval |
| | b. BATA Light Pole Contract – Additional Funds* | M. Forner, CT/ J. Weinstein, BATA | 10 min | Approval |
| | c. Light Pipe and Related Concepts* | PMT | 20 min | Information |
| | d. Bridge Opening*** | B. Ney, CT J. Goodwin, BATA | 20 min | Information |
| | e. Toll Bridge Seismic Safety Peer Review Panel | T. Anziano, CT | 10 min | Information |
| 5. | SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Corridor Update* | T. Anziano, CT | 10 min | Information |
| | b. Yerba Buena Island Transition Structure (YBITS) No. 2 | | | |



Final Agenda

| | Topic | Presenter | Time | Desired Outcome |
|----|---|-----------------|---------|--------------------|
| | 1) Plans, Specifications & Estimate (PS&E)* | S. Hulsebus, CT | 10 min | Approval |
| | 2) Contractor Stipend* | B. Maroney, CT | 10 min | Approval |
| 6. | ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES a. Updates* | M. Forner, CT | 10 min | Information |
| 7. | OTHER BUSINESS | | | |
| | Novt TDDOC Mosting, Eshmony 9 | 0011 10.00 AM | 1.00 AM | |

Next TBPOC Meeting: February 2, 2011, 10:00 AM – 1:00 AM Mission Bay Office, Oakland

- * Attachments
- ** Stand-alone document included in the binder
- *** To be sent under separate cover



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TBPOC MEETING

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| 3 | 3 | PROGRESS REPORTS a. Draft Project Progress and Financial Update December 2011** |
| 4 | 4 | PROGRAM ISSUES a. Bridge Commemorative Stamp and Coin Proposal* b. BATA Light Pole Contract – Additional Funds* c. Light Pipe and Related Concepts* d. Bridge Opening*** e. Toll Bridge Seismic Safety Peer Review Panel |
| 5 | 5 | SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Corridor Update* b. Yerba Buena Island Transition Structure (YBITS) No. 2 1) Plans, Specifications & Estimate (PS&E)* 2) Contractor Stipend* |
| 6 | 6 | ANTIOCH/DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES a. Updates* |
| 7 | 7 | OTHER BUSINESS |

Attachments

^{**} Stand-alone document included in the binder *** To be sent under separate cover

ITEM 1: CHAIR'S REPORT

No Attachments



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Andrew Fremier, Deputy Executive Director - Operations, MTC/BATA

RE: Agenda No. - 2a1

Consent Calendar

Item- TBPOC Meeting Minutes

December 1, 2011 Meeting Minutes

Recommendation:

APPROVAL

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

The Program Management Team has reviewed and requests TBPOC approval of the December 1, 2011 Meeting Minutes.

Attachment(s):

December 1, 2011 Meeting Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

December 1, 2011, 1:00pm – 4:00pm Mission Bay Office, 325 Burma Road, Oakland TBPOC – PMT pre-briefing: 1:00pm –4:00pm TBPOC meeting: 2:00pm – 4:00pm

Attendees: TBPOC Members: Steve Heminger (Chair), Bimla Rhinehart, and

Malcolm Dougherty

PMT Members: Tony Anziano and Andrew Fremier

<u>Participants</u>: Michele DiFrancia, Rich Foley, Mike Forner, Beatriz Lacson, Peter Lee, Brian Maroney, Bart Ney, Dina Noel, Mo Pazooki, Bijan Sartipi,

Trish Stoops, Jon Tapping, Deanna Vilchek, and Jason Weinstein

Convened: 2:21 PM

| Conv | rened: 2:21 PM | |
|------|--|--|
| | Items | Action |
| 1. | CHAIR'S REPORT The Chair indicated that he would be conducting the meeting according to the revised agenda handed out earlier. | |
| 2. | consent calendar a. TBPOC Meeting Minutes 1) November 2, 2011 Meeting Minutes 2) November 10, 2011 Meeting Minutes b. Contract Change Orders (CCOS): 1) YBITS1 CCO 524-S2 (Oakland Detour Westbound Bridge Widening Foundations), \$43,163 – For Information Only 2) YBITS1 CCO 526-S0 (Oakland Detour Westbound Roadway), \$2,774,851 – For Information Only 3) YBITS1 CCO 540-S0 (Oakland Detour Westbound Structural Steel Erection), \$1,769,910 – For Information Only | The TBPOC APPROVED the TBPOC Meeting Minutes, as presented. |
| | 4) SAS CCO 44-S0 and S1 (Barrier Modification and Electrical Work), \$1,413,028 5) SAS CCO 85-S0 (Elevator Details), | • The TBPOC APPROVED SAS CCOs 44-S0 and S1, 85-S0, and 99-S0, as presented. |

| | _ | |
|----|---|---|
| | \$1,400,000 6) SAS CCO 99-S0 (Bike Path Shop Details), \$4,500,000 • D. Noel referred to a revised Item 2b6 cover memo handed out, which included the addition of a cost breakdown and revision to the risk statement. | Action |
| 3. | PROGRESS REPORTS a. Draft Project Progress and Financial Update November 2011 P. Lee handed out version 2.0 of the draft November 2011 monthly report, noted the changes on page 2, and requested TBPOC approval of the report. | The TBPOC APPROVED the Project Progress and Financial Update November 2011. |
| 4. | SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. East Span Acceleration 1) YBITS1 CCO 72-S1 (Mitigate Delay & Milestones to Release Hinge K to the SAS Contract), \$11,248,480 • T. Anziano summarized the elements of CCO 72-S1 and presented it for TBPOC approval. | The TBPOC APPROVED YBITS1 CCO 72-S1, as presented. |
| | 2) SAS CCO 216 (Hinge K Milestone), \$28,550,000 T. Anziano presented CCO 216 for TBPOC approval. | • The TBPOC APPROVED SAS CCO 216, as presented. |
| | Discussion items included: adequacy of the budget/contingency to cover the CCOs; need for BATA action, if any; when to report the September 2013 seismic safety opening (SSO) date to the public; and, coordination with the America's Cup organization on transportation issues. | The TBPOC tasked the PMT to develop a strategy for the public announcement of the new SSO target date. |
| | b. Corridor Update T. Anziano alerted the TBPOC to a future request for a YBITS2 contract | |

| | Items | Action |
|----|---|---|
| | bidder stipend (similar to the SAS contract). As soon as a specific amount has been determined, a request will be submitted for TBPOC approval. | |
| c. | Oakland Touchdown 2 (OTD2) Addendum T. Anziano presented for TBPOC approval the OTD2 addendum, which will result in a reduction in schedule risks. | The TBPOC APPROVED the OTD2 addendum as presented. |
| d. | YBITS2 Order of Work T. Anziano presented two bid options for implementing A+B on the YBITS2 contract for TBPOC consideration and approval. A. Fremier offered a third option: A+B on bike path and eastbound onramp; B excludes eastern portion of the cantilever. | • The TBPOC APPROVED Option 3, as presented for implementation on the YBITS2 contract. |
| | P. Lee distributed a handout that presented BATA's suggested questions and requests for Caltrans and the TBSSPRP regarding the structural integrity of T1 foundation. M. Dougherty summarized the Department procedure for foundation testing. | The TBPOC APPROVED in concept the draft questions and requests for the TBSSPRP. The Department to provide the TBPOC a fact sheet of the different reviews performed to date. |
| | Department procedure for | different reviews performed to |
| | should be prepared to address media and public inquiries. He also requested that the results of the | |

| | T 4 | A .1 |
|----|--|--------|
| | Items panel's review be released by each bridge under the Toll Bridge Program. | Action |
| 6. | ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES a. Update • M. Forner gave the status of ongoing field work. • Antioch: > Work on the project is progressing well, with the seismic portion close to completion by early to mid-2012. • Dumbarton: > Steel fabrication is progressing on schedule; isolation bearing installation is back on track; the May 30 bridge closure is on schedule. > The savings anticipated on the Antioch project could potentially be shifted to cover the anticipated cost overruns on the Dumbarton job. | |
| 7. | OTHER BUSINESS B. Rhinehart reminded her colleagues of the tri-agency composition of the TBPOC, and that any toll bridge-related information should be shared by all members. M. Dougherty expressed appreciation to P. New and his team for conducting the | |
| | B. Ney and his team for conducting the bridge tour for him and his transportation colleagues from the states of Colorado, Idaho and Oregon. The next TBPOC meeting is on January 5, 2012 in Oakland, 10:00am – 1:00pm. | |

Adjourned: 3:06 PM

TBPOC MEETING MINUTES

December 1, 2011, 10:00am - 1:00pm

STEVE HEMINGER, TBPOC Chair Executive Director, Bay Area Toll Authority BIMLA G. RHINEHART, TBPOC Vice-Chair Executive Director, California Transportation Commission

MALCOLM DOUGHERTY

Acting Director, California Department of Transportation

Date



TO: Toll Bridge Oversight Committee (TBPOC) DATE: December 28, 2011

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 2b1

Item - Consent Calendar – Contract Change Orders (CCOs)

YBITS1 Contract - CCO 529 Oakland Detour Westbound

Structure – Substructure and Superstructure

Recommendation:

For Information Only

Cost:

YBITS1 CCO # 529-S0: \$2,968,027.00

Schedule Impacts:

N/A

Discussion:

YBITS1 Change Order No. 529 in the amount of \$2,968,027.00 will provide for the construction of the westbound substructure items for the Oakland Detour. The work includes installing bar reinforcing steel, structural concrete walls and slabs, structure excavation and backfill, pre-stressing, and other items as required to complete the bridge structure.

CCO No. 529-S0 was approved by the TBPOC at the June 02, 2011 meeting at a cost not to exceed \$8,000,000.00 for all work associated with the westbound substructure and superstructure construction of the Oakland Detour. The current scope of that approved amount has been split into multiple CCOs. The table below shows the funding breakdown of the approved amount:

| Item Description | Approved | 11/10/2011 | Finalized |
|---|----------------|------------------|----------------|
| | Budget | current estimate | CCO Amount |
| CCO 529-S0, support walls and strap beams, and pre-stressing (this CCO) | \$3,205,196.00 | \$2,968,027.00 | \$2,968,027.00 |
| CCO 540-S0, Erect structural steel | \$322,754.00 | \$1,769,910.00 | \$1,769,910.00 |
| CCO 539-S0, furnish structural steel | \$264,072.00 | \$500,000.00 | \$500,000.00 |

| CCO 539, future supplement | \$0 | \$400,000.00 | Not final |
|--|----------------|----------------|-------------|
| CCO 538-S0, bridge demo plan | \$0 | \$50,000.00 | \$50,000.00 |
| CCO 529-S1, superstructure work and demolition | \$4,211,838.00 | \$3,650,000.00 | Not final |
| Estimated Total | | \$8-9.3M | Not final |

The total estimated final cost for CCO No. 529-S0 and all the westbound structure work listed above, including future supplements, is \$9,337,937.00. If the estimated \$9.3 million amount is correct, we will request the TBPOC approval for a budget adjustment. At this time, CCO 529-S0 can be funded from the not-to-exceed amount of \$8.0 million approved on June 2, 2011.

Risk Management:

The following risks have been identified in the risk register to cover expenses outside of the scope of work approved within the \$8,000,000 budget:

Risk Item #1220 -- Difficulties Constructing the Widening Structure may be Incurred --- 50% probable = \$817K

Risk Item #1280 -- Added Cost and/or Time to Mitigate Edge Girder Interference on Existing Bridge --- 50% probable = \$750K

Risk Item #2040 -- Differing site condition or buried man-made object encountered --- 50% probable = \$397K

Attachment(s):

- 1. Draft YBITS CCO 529-S0
- 2. Draft YBITS CCO 529-S0 Memo

Engineer

Change Requested by:

CONTRACT CHANGE ORDER

| CCO: 529 | Suppl. No. 0 | Contract No. 04 - 0120S4 | Road SF-80-12.7/13.2 | FED. AID LOC.: NO FED AID |
|----------|--------------|--------------------------|-----------------------------|---------------------------|
|----------|--------------|--------------------------|-----------------------------|---------------------------|

To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Construct the Oakland Touchdown Detour Westbound Structure—Substructure Support Walls and Strap Beams in accordance with the attached drawings (Sheets 3 through 86 of this change order) for the San Francisco-Oakland East Span Seismic Safety Project Oakland Touchdown Detour, Bridge No. 33-25:

The contract plan sheets reflecting this change are 2R3, 3R3, 41R1, 42, 43, 44R1, 45, 46R1, 47, 48, 49R1, 50R1, 51R1, 52 through 58, 59R1, 60, 61, 62R1, 63 through 70, 71R1, 72 through 76, 77R1, 78R1, 79, 80R1, 81R1, 84R1, 85, 86, 87R1, 88, 89R1, 90, 91R1, 92R1, 93R1, 94R1, 95 through 105, 106R1, 107 through 120, and 121R1 of 210, and Sketch 01 dated September 22, 2011 (Total of 84 plan sheets).

Extra Work at Unit Price:

 1 Structure Earthwork (Including Shoring)
 1 LS @\$293,128
 =\$293,128

 2 Prestressing Cast-In-Place Concrete
 1 LS @\$37,142
 =\$37,142

 3 Structural Concrete, Bridge
 1 LS @\$1,685,716
 =\$1,685,716

 4 Bar Reinforcing Steel (Bridge)
 1 LS@\$855,455
 =\$855,455

 5 Drill and Bond Dowel
 1 LS@\$15,065
 =\$15,065

6 Miscellaneous Metal (Includes bearing pads and shear keys and installation of the portion of the load transfer support plates and anchor rods embedded in the structure) 1 LS@\$81,521 =\$81,521

The structural concrete price is based on constructing the portion of Wall A from Bent E33 to Bent E39 after the traffic is switched and the curtain walls are removed in order to facilitate access to this work. The work associated with the removal of curtain walls will be covered under a separate change order.

The work associated with the fabrication of miscellaneous metal load transfer support plates and anchor rods is covered under a separate change order.

The agreed unit prices do not include lane closures or traffic control, which will be paid under a separate change order.

The agreed price excludes relocating, removing or installation of barrier rails (Type K or other), which will be paid for under a separate change order.

The price excludes the cost of any Storm Water Pollution Prevention Plan (SWPPP) measures, such as SWPPP amendments and reports, and appropriate Best Management Practices (BMPs), which will be paid for under a separate change order.

The agreed price does not include furnishing backfill materials (sand or slurry cement). Also, the price does not include the disposal of excess excavation soils and dewatering, which are covered under separate change orders.

The agreed price includes the installation and removal of shoring as required and shoring material costs provided the work requiring shoring is completed, and shoring is no long required and is removed from the site by February 1, 2012. If shoring is still required to remain in place beyond February 1, 2012, the additional rental costs for the shoring will be paid on a force account basis under a separate change order or supplement to this change order.

The agreed prices include all labor, equipment and material as required. The agreed prices constitute full payment, including all markups, for this change.

Estimated cost of Extra Work at Agreed Unit Price\$2,968,027.00

CONTRACT CHANGE ORDER

Change Requested by:

Engineer

| CCO: 529 | Suppl. No. 0 | Contract No. 04 - 0120S4 | Road SF-80-12.7/13.2 | FED. AID LOC.: NO FED AID |
|----------|--------------|--------------------------|----------------------|---------------------------|

| | Estimated Cost: Increase 🗸 Decrease 🗌 \$2 | 2,968,027.00 | | | | | | |
|--|---|--------------|--|--|--|--|--|--|
| By reason of this order the time of completion will be adjusted as follows: 0 days | | | | | | | | |
| Submitted by | | | | | | | | |
| Signature | Resident Engineer | Date | | | | | | |
| | William Howe, Senior R.E. | | | | | | | |
| Approval Recommended by | | | | | | | | |
| Signature | Construction Manager | Date | | | | | | |
| | Mike Forner | | | | | | | |
| Engineer Approval by | | | | | | | | |
| Signature | Construction Manager | Date | | | | | | |
| | Mike Forner | | | | | | | |

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

| Contractor Acceptance by | | |
|--------------------------|------------------------|------|
| Signature | (Print name and title) | Date |
| | | |

CONTRACT CHANGE ORDER MEMORANDUM

| TO: Deanna Vilcheck, ACM / | | | | | FILE: | E.A. | 04 - 0120S4 | | | |
|--|--------|--------------------|---------|--|--|--|--|---|--|--|
| | | | | | | E-PM | SF-80-12.7/13.2 | | | |
| FROM: William Howe, Senior R.E. | | | | | FE | D. NO. | NO FED AID | | | |
| CCO#: 529 | SUPPLI | EMENT#: 0 | Categor | y Code: BZZZ | CONTING | GENCY | BALANCE (incl. this cha | nge) \$32,416,042.00 | | |
| COST: \$2,968,027.00 INCREASE ✓ DECREASE □ | | | | | HEADQU | HEADQUARTERS APPROVAL REQUIRED? ✓ YES ☐ NO | | | | |
| SUPPLEMENTAL FUNDS PROVIDED: \$0.00 | | | | | IS THIS REQUEST IN ACCORDANCE WITH ✓ YES NO ENVIRONMENTAL DOCUMENTS? | | | | | |
| CCO DESCRIPTI | ON: | | | | PROJEC | PROJECT DESCRIPTION: | | | | |
| OTDD- WB Substructure support walls,beam | | | | | YBITS-1 | YBITS-1 (Yerba Buena Island Transition Structures) | | | | |
| Original Contract Ti | ime: | Time Adj. This Cha | ange: | Previously Approved (Time Adjustments: | cco | | tage Time Adjusted: ng this change) | Total # of Unreconciled Deferred Time CCO(s): (including this change) | | |
| 1390 | Day(s) | 0 | Day(s) | 0 D | ay(s) | | 0 % | | | |

DATE: 5/23/2011

Page 1 of 1

THIS CHANGE ORDER PROVIDES FOR:

This change order provides compensation to the contractor for costs to construct the Oakland Touchdown Detour Westbound Structure – Substructure Support Walls and Strap Beams in accordance with the contract plan sheets (Sheets 3 through 86 of the change order). The work includes installing bar reinforcing steel, structural concrete walls and slabs, structure excavation, prestressing, and other work as required to complete the bridge structure.

This contract calls for the construction of the Yerba Buena Island Transition structures of the east span of the new San Francisco Oakland Bay Bridge (SFOBB). In a memo dated October 3, 2010, the Deputy Toll Bridge Program Manager recommended to the Toll Bridge Program Oversight Committee (TBPOC) that the Temporary OTD Eastbound Detour be done under Contract Change Orders (CCO's). This recommendation was approved by the TBPOC in their October 7, 2010 meeting. Subsequently, a Contract Change Order Implementation Strategy for \$51.5 Million was prepared and approved by the TBPOC in their February 3, 2011 meeting. Consistent with the Implementation Strategy, CCO No. 529 was specifically approved for a not-to-exceed amount of \$8.0 Million by the TBPOC in their June 2, 2011 meeting.

Elements of work excluded from this change order include traffic control, barrier rail, storm water pollution prevention plans, backfill, disposal of excess excavation soils, and dewatering. Compensation for this work associated with constructing the substructure and superstructure for the westbound structure shall be paid at agreed lump sum. This change order provides funding for an estimated cost of \$2,968,027. This will be funded from the project's contingency fund. A cost analysis is on file.

No adjustment of contract time is warranted, as this change will not affect the controlling operation.

This change was requested by Mike Whiteside, Branch Chief, Office of Toll Bridge design, on July 11, 2011.

Maintenance concurrence is required.

| CONCURRED BY: | | | | ESTIMATE OF COST | | | | |
|----------------------------|------------------------------|------|--|--------------------------|----------------------------|--|--|--|
| Construction Engineer: | William Howe | Date | | THIS REQUEST | TOTAL TO DATE | | | |
| Bridge Engineer: | Gary Lai | Date | ITEMS FORCE ACCOUNT | \$0.00 | \$0.00 | | | |
| Project Engineer: | Charles Ho | Date | AGREED PRICE | \$0.00 \$2,968,027.00 | \$0.00 \$2,968,027.00 | | | |
| Project Manager: | Ken Terpstra | Date | ADJUSTMENT | \$0.00 | \$0.00 | | | |
| FHWA Rep.: | | Date | TOTAL | \$2,968,027.00 | \$2,968,027.00 | | | |
| Environmental: Date | | | FEDERAL PARTICIPATION | | | | | |
| Other (specify): | Lina Ellis, Str. Maintenance | Date | PARTICIPATING NON-PARTICIPATIN | PARTICIPATING IN PART | ✓ NONE ON-PARTICIPATING | | | |
| Other (specify): | | Date | FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type) | | | | | |
| District Prior Approval By | r. | Date | CCO FUNDED PER CONTRACT CCO FUNDED AS FOLLOWS | | | | | |
| HQ (Issue _Approve) By: | Larry Salhaney | Date | FEDERAL FUNDING SOURCE PERCENT | | | | | |
| Resident Engineer's Sign | nature: | Date | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



TO: Toll Bridge Oversight Committee (TBPOC) DATE: December 28, 2011

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 2b2

Item - Consent Calendar – Contract Change Orders (CCOs)

YBITS1 Contract - CCO 547 Oakland Detour Westbound

Bridge Jacking

Recommendation:

APPROVAL

Cost:

YBITS1 CCO # 547: \$1,200,000.00 (Not to Exceed)

Schedule Impacts:

N/A

Discussion:

YBITS1 Change Order No. 547 **in the not-to-exceed amount of \$1,200,000.00** will provide for furnishing jacks and performing bridge jacking for the construction of the Oakland Detour westbound structure.

This change order is being issued to maintain structural integrity of the existing deck structure and transfer loads to the newly constructed substructure support walls.

The \$1,200,000.00 in funding being requested for this change exceeds the \$250,000.00 budgeted for this work. This request reduces the contingency balance from \$5.55 M to \$4.35 M on the total \$51.0 M construction budget approved February 24, 2011.

Risk Management:

The project risk register carries an allowance of \$.5M-\$2M for added costs of constructing the westbound widening structure (risk #1220). The cost differential of CCO 547 is well within this range.

Attachment(s):

- 1. Draft YBITS1 CCO 547-S0
- 2. Draft YBITS1 CCO 547-S0 Memo

Engineer

Change Requested by:

CONTRACT CHANGE ORDER

CCO: 547 Suppl. No. 0 Contract No. 04 - 0120S4 Road SF-80-12.7/13.2 FED. AID LOC.: NO FED AID

To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

As authorized by the Engineer furnish all labor, equipment, and materials necessary to perform bridge jacking in accordance with Sheets 3 through 47 of this change order for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Oakland Touchdown Detour, Bridge No. 33-25.

The attached contract plans reflecting this change are 1 through 45 of 210.

Contract plans reflecting this change order that were previously issued with CCO 539 and 539 Supplement 1 include: 121R1, 142 and 182.

Extra Work at Lump Sum:

The Work of this change shall include, but shall not be limited to:

- 1.) Furnishing bridge jacking equipment (FOB jobsite), calibration of gauges for each jack, and gauge certification;
- 2.) Unloading of bridge jacking equipment;
- 3.) Hoisting and installation of twenty-eight (28) 250 ton locking hydraulic pancake cylinder jacks;
- 4.) Performance of the following bridge jacking operations as described in the contract plan sheets for the following construction stages (this includes the installation and removal of the bridge jacking system parts for each operation (i.e., hoses, gauges, manifolds, compressors, pumps, and generators:
- a. Stage 2.6-1
- b. Stage 2.6-2
- c. Stage 2.6-4
- d. Stage 2.7-1
- e. Stage 2.8-5
- f. Stage 2.8-7
- g Stage 2.10-7
- h.Stage 3.1-1,
- i. Stage 3.1-3, and
- j. Final Post Demolition/Closure Weekend Verification;
- 5.) Eight (8) hours duration for each bridge jacking operation including the installation and removal of bridge jacking system parts;
- 6.) Design assistance with bridge jacking system, bridge jacking plan review, etc;
- 7.) Performance and oversight of bridge jacking operations; and
- 8.) Premium time for hoisting and installing two (2) bridge jacks at bridge jacking locations C1 and C2 located adjacent to traffic lanes that will be performed during a night-time lane closure;
- 9.) Premium time for bridge jacking operation scope of work performed during weekend closure:
- 10) Maintaining employment of key bridge jacking operations ironworker foreman up to weekend closure due to the bridge jacking operations not being continuous;
- 11.) Weekend closure including preparation for the weekend and post weekend/closeout. Costs include hotel stays, auto rental, airport parking, and subsistence for key personnel. Includes the following personnel on eight (8) or twelve (12) hour shifts:
- a.) Ironworker General Foremen
- b.) Ironworker Foremen (4 EA)
- c.) Project Managers and 'or Assistant Project Managers
- d.) Dedicated Safety Managers
- e.) Dedicated Clerk/Office Assistants for Weekend Payroll and Accounting
- 12.) The Schedule shall reflect a jack installation duration of six (6) work days, seven (7) work days for jacking operations other than those performed during weekend closure, and three (3) eight (8) hour shifts for jacking operations during the

Engineer

Change Requested by:

CONTRACT CHANGE ORDER

CCO: 547 | Suppl. No. 0 | Contract No. 04 - 0120S4 | Road SF-80-12.7/13.2 | FED. AID LOC.: NO FED AID

weekend closure.

For furnishing jacks and performing bridge jacking in accordance with the contract plan, the Contractor shall be paid an agreed lump sum Not-To-Exceed \$1,200,000.00.

The agreed lump sum does not include lane closures or traffic control, which will be paid for under a separate change order.

The agreed price does not include installing substructure and walls (which will be paid for under a separate change order); touch up or finish painting, galvanizing.

The agreed price also excludes the following work activities:

lead containment and cleanup, and disposal for field drilling locations that have not been previously lead abated, and lead air monitoring.

The agreed lump sum includes all labor, equipment, and material required to complete the work associated with this change order. The agreed lump sum constitutes full payment, including all markups, for this change.

Total Estimated Extra Work at Lump SumNTE \$1,200,000.00

Total CCO: NOT-TO-EXCEED \$1,200,000.00

| | Estimated Cost: Increase 🗸 Decrease 🗆 \$1,200 | 0,000.00 | | | | | | |
|--|---|----------|--|--|--|--|--|--|
| By reason of this order the time of completion will be adjusted as follows: 0 days | | | | | | | | |
| Submitted by | | | | | | | | |
| Signature | Resident Engineer | Date | | | | | | |
| | William Howe, Senior R.E. | | | | | | | |
| Approval Recommended by | | | | | | | | |
| Signature | Construction Manager | Date | | | | | | |
| | Mike Forner | | | | | | | |
| Engineer Approval by | | | | | | | | |
| Signature | Construction Manager | Date | | | | | | |
| | Mike Forner | | | | | | | |

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

| Contractor Acceptance by | | |
|--------------------------|------------------------|------|
| Signature | (Print name and title) | Date |
| | | |

CONTRACT CHANGE ORDER MEMORANDUM

| TO: Deanna Vilcheck, ACM / | | | | | FILE: | E.A. | 04 - 0120S4 | | |
|--|--------|--------------------|---------|--|--|--------|--|---|--|
| | | | | | | E-PM | SF-80-12.7/13.2 | | |
| FROM: William Howe, Senior R.E. | | | | | FE | D. NO. | NO FED AID | | |
| CCO#: 547 | SUPPLE | EMENT#: 0 | Categor | y Code: BZZZ | CONTING | GENCY | BALANCE (incl. this char | nge) \$32,416,042.00 | |
| COST: \$1,200,000.00 INCREASE ✓ DECREASE □ | | | | | HEADQUARTERS APPROVAL REQUIRED? ✓ YES ☐ NO | | | | |
| SUPPLEMENTAL FUNDS PROVIDED: \$0.00 | | | | | IS THIS REQUEST IN ACCORDANCE WITH ✓ YES NO ENVIRONMENTAL DOCUMENTS? | | | | |
| CCO DESCRIPTI | ON: | | | | PROJECT DESCRIPTION: | | | | |
| OTDD-WB Str. Bridge Jacking | | | | | YBITS-1 (Yerba Buena Island Transition Structures) | | | | |
| Original Contract Ti | me: | Time Adj. This Cha | ange: | Previously Approved C Time Adjustments: | CO | | tage Time Adjusted: ng this change) | Total # of Unreconciled Deferred Time CCO(s): (including this change) | |
| 1390 | Day(s) | 0 | Day(s) | 0 Da | ay(s) | | 0 % | 0 | |

DATE: 12/16/2011 Page 1 of 1

THIS CHANGE ORDER PROVIDES FOR:

This change order provides compensation to the contractor for costs to furnish jacks and bridge jacking equipment and perform bridge jacking for the construction of the Oakland Touchdown Detour Westbound structure.

This contract calls for the construction of the Yerba Buena Island Transition structures of the east span of the new San Francisco Oakland Bay Bridge (SFOBB). In a memo dated October 3, 2010, the Deputy Toll Bridge Program Manager recommended to the Toll Bridge Program Oversight Committee (TBPOC) that the Temporary OTD Eastbound Detour be done under Contract Change Orders. This recommendation was approved by the TBPOC in their October 7, 2010 meeting. Subsequently, a Contract Change Order Implementation Strategy for \$51.5 Million was prepared and approved by the TBPOC in their February 3, 2011 meeting, and Supplemental funding for this work was approved. The work included in this CCO is part of that approved amount.

Compensation for furnishing and installing jacking equipment and performing bridge jacking shall be paid as extra work at an agreed lump sum Not-To-Exceed \$1,200,000.00, which can be financed from the project's contingency fund. A detailed cost analysis for this change order is on file in the project records.

There is no adjustment of contract time for this change as it does not affect the controlling operations.

This change was requested by Mike Whiteside, Toll Bridge Structures Design, on October 03, 2011.

Maintenance concurrence is not required since it does not affect any permanent feature.

| CONCURRED BY: | | | | ESTIMATE OF COST | | | |
|-----------------------------|----------------|------|---|--------------------------|--------------------------|--|--|
| Construction Engineer: | William Howe | Date | | THIS REQUEST | TOTAL TO DATE | | |
| Bridge Engineer: | Gary Lai | Date | ITEMS | \$0.00 | \$0.00 | | |
| Project Engineer: | • | Date | FORCE ACCOUNT AGREED PRICE | \$0.00 \$1,200,000.00 | \$0.00 \$1,200,000.00 | | |
| Project Manager: | Ken Terpstra | Date | ADJUSTMENT | \$0.00 | \$0.00 | | |
| FHWA Rep.: | | Date | TOTAL | \$1,200,000.00 | \$1,200,000.00 | | |
| Environmental: Date | | | FEDERAL PARTICIPATION | | | | |
| Other (specify): Date | | | PARTICIPATING PARTICIPATING IN PART ✓ NONE NON-PARTICIPATING (MAINTENANCE) NON-PARTICIPATING | | | | |
| Other (specify): | | Date | FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type) CCO FUNDED PER CONTRACT CCO FUNDED AS FOLLOWS | | | | |
| District Prior Approval By: | | Date | | | | | |
| HQ (Issue _Approve) By: | Larry Salhaney | Date | FEDERAL FUNDING | SOURCE F | PERCENT | | |
| Resident Engineer's Sign | ature: | Date | - | | | | |
| | | | | | | | |
| | | | - | | | | |



TO: Toll Bridge Oversight Committee (TBPOC) DATE: December 28, 2011

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 2b3

Item - Consent Calendar – Contract Change Orders (CCOs)

YBITS1 Contract - CCO 549, Oakland Detour Westbound

Bridge Closure - Portable CMS

Recommendation:

APPROVAL

Cost:

YBITS1 CCO # 549: \$1,700,000.00 (Not to Exceed)

Schedule Impacts:

N/A

Discussion:

YBITS1 Change Order No. 549 in the not-to-exceed amount of \$1,700,000.00 will provide for furnishing, operating, and maintaining portable changeable message signs (PCMS) required in advance and during the full-traffic closure of the westbound direction of the San Francisco-Oakland Bay Bridge (SFOBB) over an extended weekend, currently planned for the 2012 President's Day Weekend.

This change order is being issued to allow for the switchover of westbound traffic from the existing structure to the new temporary structure.

Risk Management:

The \$1,700,000.00 in funding being requested for this change includes \$1,200,000.00 currently budgeted for this work in the Oakland Detour budget. A CCO risk with an expected value of \$500,000.00 has been added to the risk register in Q4 2011, to account for this allocation.

Attachment(s):

- 1. Draft YBITS1 CCO 549-S0
- 2. Draft YBITS1 CCO 549-S0 Memo

Engineer

Change Requested by:

CONTRACT CHANGE ORDER

CCO: 549 Suppl. No. 0 Contract No. 04 - 0120S4 Road SF-80-12.7/13.2 FED. AID LOC.: NO FED AID

To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Perform the following work pertaining to the planned 81-hour full traffic closure of the westbound direction of the San Francisco-Oakland Bay Bridge beginning at 8:00 PM (2000 Hours) Friday, February 24, 2012, and ending Tuesday, February 28, 2011, at 5:00 AM (0500 Hours) for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Oakland Touchdown Detour, Bridge No. 33-25:

Extra Work at Unit Price:

The Engineer may be required to postpone the date of the full closure of the westbound direction of the San Francisco-Oakland Bay Bridge, due to weather or other changes. There may be little or no advance notification provided by the Engineer of such postponement until the actual date. In such case, the contractor shall maintain display notices as directed by the Engineer throughout the additional period of postponement and during the closure.

- 1. In the event that the closure is postponed by a six day period from 8:00 PM (2000 Hours) Friday, February 24, 2012, and ending Tuesday, February 28, 2011, at 5:00 AM (0500 Hours), to 8:00 PM (2000 Hours) Thursday March 1, 2012, until 0500 Hours (5:00 AM) Monday March 5, 2012, the contractor shall receive and accept a lump sum of \$_____ for displaying the advance notice and maintaining the 75 each PCMSs during the additional period required. This sum constitutes full and complete compensation for furnishing all labor, material, equipment, tools, and incidentals including all markups by reason of this change.
- 2. In the event that the closure is further postponed after the above postponement, for each additional one week period of postponement, the contractor shall receive and accept \$_____ per week for displaying the advance notice and maintaining the 75 each PCMSs during the additional period required. This sum constitutes full and complete compensation for furnishing all labor, material, equipment, tools, and incidentals including all markups by reason of this change.

Estimated cost of Extra Work at Agreed Unit Price\$xxxxx.xx

Extra Work at Lump Sum:

- 1) Mobilize and Demolish 75 EA Portable Changeable Message Signs (PCMS);
- 2) Furnish, install, operate, and maintain 75 EA PCMS, displaying the designated messages at the designated locations as shown on Sheet Nos. X thru Y of this change order for a four (4) week duration prior to the closure date and during the 81-hour closure.

For this work, the Contractor shall be compensated an agreed lump sum of \$_____.00. This lump sum constitutes full and final compensation, including all markups, for the work specified in this change order

Extra Work at Lump Sum\$xxxxxx.xx

Total CCO: Not To Exceed \$1,700,000.00

CONTRACT CHANGE ORDER

Change Requested by: Engineer

| CCO: 549 | Suppl. No. 0 | Contract No. 04 - 0120S4 | Road SF-80-12.7/13.2 | FED. AID LOC.: NO FED AID |
|----------|--------------|--------------------------|----------------------|---------------------------|

| | Estimated Cost: Increase 🗸 Decrease 🗌 \$1, | 700,000.00 |
|---|--|------------|
| By reason of this order the time of completion will be ad | justed as follows: 0 days | |
| Submitted by | | |
| Signature | Resident Engineer | Date |
| | William Howe, Senior R.E. | |
| Approval Recommended by | | |
| Signature | Construction Manager | Date |
| | Mike Forner | |
| Engineer Approval by | | |
| Signature | Construction Manager | Date |
| | Mike Forner | |

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

| Contractor Acceptance by | | |
|--------------------------|------------------------|------|
| Signature | (Print name and title) | Date |

CONTRACT CHANGE ORDER MEMORANDUM

| TO: Deanna Vilcheck, ACM / | | | | | FILE: | E.A. | 04 - 0120S4 | | | |
|--|----------|------------------|----------|--|---------|--|--|---|------------|--|
| | | | | | CO-R1 | E-PM | SF-80-12.7/13.2 | | | |
| FROM: William Howe, Senior R.E. | | | | | FEI | D. NO. | NO FED AID | | | |
| CCO#: 549 | SUPPL | EMENT#: 0 | Category | y Code: BZZZ | CONTING | GENCY | BALANCE (incl. this char | nge) \$32, | 416,042.00 | |
| COST: \$1,700,000.00 INCREASE ✓ DECREASE | | | | | HEADQL | JARTER | S APPROVAL REQUIRE | :D? ✓ YE | S NO | |
| SUPPLEMENTA | AL FUNDS | PROVIDED: | | \$0.00 | | IS THIS REQUEST IN ACCORDANCE WITH ✓ YES NO ENVIRONMENTAL DOCUMENTS? | | | | |
| CCO DESCRIP | TION: | | | | PROJEC | PROJECT DESCRIPTION: | | | | |
| OTDD- WB Weekend Closure Portable CMSs | | | | | YBITS-1 | YBITS-1 (Yerba Buena Island Transition Structures) | | | | |
| Original Contract | Time: | Time Adj. This C | hange: | Previously Approved Time Adjustments: | ССО | | tage Time Adjusted: ng this change) | Total # of Unreconciled Deferred Time CCO(s): (including this change) | | |
| 1390 | Day(s) | 0 | Day(s) | 0 [| Day(s) | | 0 % | | 0 | |

DATE: 12/14/2011 Page 1 of 2

THIS CHANGE ORDER PROVIDES FOR:

This Contract Change Order (CCO) provides for compensating the Contractor for furnishing, operating, and maintaining portable changeable message signs (PCMS's) for the planned 2012 President's Day Weekend bridge full traffic closure of the westbound direction of the San Francisco-Oakland Bay Bridge (SFOBB). The PCMS's will operate approximately four (4) weeks duration. This CCO also provides funds for furnishing, operating, and maintaining PCMS's for an extended period of time in the event weather conditions cause delays.

This contract calls for the construction of the Yerba Buena Island Transition structures of the east span of the new San Francisco Oakland Bay Bridge (SFOBB). In a memo dated October 3, 2010, the Deputy Toll Bridge Program Manager recommended to the Toll Bridge Program Oversight Committee (TBPOC) that the Temporary OTD Eastbound Detour be done under Contract Change Orders. This recommendation was approved by the TBPOC in their October 7, 2010 meeting. Subsequently, a Contract Change Order Implementation Strategy for \$51.5 Million was prepared and approved by the TBPOC in their February 3, 2011 meeting, and Supplemental funding for this work was approved. The work included in this CCO is part of that approved amount.

The Temporary Oakland Touchdown Detour (TOTDD) project proposes to modify the current Interstate I-80 roadway alignment between the San Francisco –Oakland Bay Bridge East Span (SFOBB) (KM 1.6 on I-80) and the toll plaza metering lights (KM 2.7 on I-80) in the City of Oakland. The TOTDD project shifts the approach alignments south to effectively clear the conflict and accelerate the construction of the new eastbound traveled way.

As part of this work, a full traffic closure of the westbound direction of the SFOBB is planned to take place over an extended weekend period to allow for the switchover of westbound traffic from the existing structure to the new temporary structure.

The District 4 Transportation Management Plans Office has provided a traffic management plan (TMP) concerning the closure of the westbound direction of the bridge, related detour signing, and the regional placement of PCMS to provide advanced notice to the travelling public. This change order provides for the implementation of the TMP pertaining to the placement of PCMS's in advance and during the closure. Advance warning signs, barricades, and other related traffic control systems are provided for in CCO No. 550.

This change is needed because the original contract does not include provisions for full or partial bridge closures.

Compensation for furnishing and maintaining all PCMS's related to the weekend closure shall be paid as extra work at an agreed lump sum Not To Exceed \$1,700,000.00, including the cost to maintain and continue operating the PCMS's if the freeway closure is postponed. The total estimated net change order cost not to exceed \$1,700,000.00 can be financed from the project's contingency funds. A detailed cost analysis is on file in the project records.

No consideration will be given to extending the contract time of completion as this change does not affect the controlling operation.

This change was requested by the District 4 Transportation Management Plans Office (TMP) and Jaime E. Gutierrez, Toll Bridge Design, in September, 2011.

Maintenance concurrence is not required as this change does not affect any permanent work.

EA: 0120S4 CCO: 549 - 0

DATE: 12/14/2011 Page 2 of 2

| CONCURRED BY: | | | | ESTIMATE OF COST | |
|----------------------------|----------------|-----------------------|--------------------------------|-----------------------------------|------------------------------|
| Construction Engineer: | William Howe | Date | | THIS REQUEST | TOTAL TO DATE |
| Bridge Engineer: | | Date | ITEMS | \$0.00 | \$0.00 |
| 3 0 | Ohavlaa I Ia | | FORCE ACCOUNT | \$0.00 | \$0.00 |
| Project Engineer: | Charles Ho | Date | AGREED PRICE | \$1,700,000.00 | \$1,700,000.00 |
| Project Manager: | Ken Terpstra | Date | ADJUSTMENT | \$0.00 | \$0.00 |
| FHWA Rep.: | | Date | TOTAL | \$1,700,000.00 | \$1,700,000.00 |
| Environmental: Date | | FEDERAL PARTICIPATION | | | |
| Other (specify): | | Date | PARTICIPATING NON-PARTICIPATIN | PARTICIPATING IN NG (MAINTENANCE) | PART NONE NON-PARTICIPATING |
| Other (specify): | | Date | FEDERAL SEGREGATION | ON (if more than one Fund | ding Source or P.I.P. type) |
| District Prior Approval By | r: | Date | CCO FUNDED PER | | CO FUNDED AS FOLLOWS |
| HQ (Issue _Approve) By: | Larry Salhaney | Date | FEDERAL FUNDING | SOURCE | PERCENT |
| Resident Engineer's Sign | nature: | Date | | | |
| | | | | | |
| | | | | | |



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 2b4

Item- Consent Calendar – Contract Change Orders (CCOs)

Yerba Buena Island Transition Structures (YBITS) No. 1

CCO 100-S1 – Hinge K Steel Barrier Plate Modifications

Recommendation:

For Information Only

Cost:

CCO 100-S1: \$12,859.00

Schedule Impacts:

No Anticipated Impacts

Discussion:

CCO 100-S1 in the amount \$12,859 is necessary to provide compensation for modifications to the steel barrier plates at the eastbound and westbound bridges at Hinge K between the YBITS and SAS structures. CCO 100-S0 provided for modifications to both the Hinge K seismic joints and the steel barrier plates with compensation for the barrier plate modifications deferred. The length of the 4 barrier plates where extended by 1.0 to 1.4 meters. This supplemental CCO provides compensation for the deferred cost associated with the fabrication of the increased length of the barrier plates.

The TBPOC approved CCO 100-S0 at a cost of \$1,767,613 at the September 8, 2011 meeting to provide for the added fabrication costs for the modified seismic joints. CCO 100-S1 was also approved at a cost not to exceed \$500,000 to provide for the installation of the joints along with the deferred fabrication costs for the modified barrier plates. The installation of the seismic joints has now been deleted from the YBITS1 contract under CCO 72-S1 leaving the deferred barrier plate fabrication costs as the only outstanding costs pertaining to the \$500,000 not-to-exceed approval for CCO 100-S1.



Risk Management:

The new SFOBB East Span calls for 6 seismic joints to be installed on the YBITS1 contract and 2 on the SAS contract. An additional 7 joints are anticipated to be provided for the OTD1 contract under YBITS1. Funding of \$10,000,000 was approved for the contract in February of 2011 to provide for the modifications to the YBITS1 joints and the procurement of the OTD1 joints. This change order falls within the budgeted amount provided for this work. As such no risk management consideration is required.

Attachment(s):

- 1. Draft CCO:100-S1
- 2. Draft CCO Memorandum: 100-S1
- 3. CCO 100-S0 History

CONTRACT CHANGE ORDER

Change Requested by:

Engineer

Contract No. 04 - 0120S4 Road SF-80-12.7/13.2 CCO 100 Suppl. No. 1 FED. AID LOC .: NO FED AID

To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Lump Sum:

Provide compensation to the Contractor for all additional costs associated with furnishing the steel barrier plates at the Hinge K Closure due to the modifications to the barrier incorporated under the original Change Order No. 100.

For these costs, the Contractor shall be compensated an Agreed Lump Sum of \$12,859.00, which constitutes full and final compensation, including all markups, for all additional costs incurred in furnishing the steel barrier plates.

Compensation provided under this change order includes all costs deferred under the original Change Order No. 100 pertaining to Contract Bid Item No. 149, CONCRETE BARRIER (TYPE 732 MODIFIED), and Contract Bid Item No. 194, MODIFIED CONCRETE BARRIER TYPE 732 (MOD). There shall be no contract item quantity adjustment to these contract bid items.

Estimated cost of Extra Work at Lump Sum\$12,859.00

| | Estimated Cost: Increase 🗹 Decrea | se 🗆 \$12,859.00 |
|--|--|------------------|
| By reason of this order the time of comp | letion will be adjusted as follows: 0 days | |
| Submitted by | THE STATE OF | |
| Signature | Resident Engineer William Howe, Senior R.E. | Date |
| Approval Recommended by | | |
| Signature | Area Construction Manager Deanna Vilcheck | Date |
| Engineer Approval by | | |
| Signature | Area Construction Manager Deanna Vilcheck | Date |

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

| Contractor Acceptance by | | |
|--------------------------|------------------------|------|
| Signature | (Print name and title) | Date |

CONTRACT CHANGE ORDER MEMORANDUM

| TO: Deanna Vilcheck, ACM / FROM: William Howe, Senior R.E. | | | 20170300 | FILE: E.A. 04 - 0120S4 CO-RTE-PM SF-80-12.7/13.2 | | | | |
|---|--|----------------|---|---|---|---|--|--|
| | | | | FED. NO. NO FED AID | | | | |
| CCO#: 100 | CCO#: 100 SUPPLEMENT#: 1 Category Code: CHPT | | T CON | CONTINGENCY BALANCE (incl. this change) | | ange) | \$67,230,494.00 | |
| COST: \$12,8 | 59.00 INCF | REASE DECREASE | □ HEA | QUARTER | RS APPROVAL REQUIR | RED? | YES NO | |
| SUPPLEMENTAL | FUNDS PROVIDED: | \$0.00 | (PO) 4 (PO) 1 (PO) | | ST IN ACCORDANCE V | WITH | YES NO | |
| CCO DESCRIPTION Hinge K Barrier Pla | | | and the second second | | CRIPTION: Buena Island Transition | Structu | res) | |
| Original Contract Time: Time Adj. This Change: Previously Approved Contract Time Adjustments: | | | | | ntage Time Adjusted: ling this change) | 100000000000000000000000000000000000000 | # of Unreconciled Deferred Time (s): (including this change) | |

DATE: 8/25/2011

Page 1 of 2

THIS CHANGE ORDER PROVIDES FOR:

Compensation for additional fabrication costs associated with modifications to the steel barrier plates at the Hinge K Closure.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) to the existing Yerba Buena Island (YBI) tunnel. The structures are comprised of concrete box girder bridges each approximately 26 meters wide, 40 meters high and 450 meters in length.

At the eastern end of the structures, the contract provides for the installation of two separate seismic expansion joints at Hinge K which connects the YBITS structure to the adjacent Self-Anchored Suspension Bridge (SAS). The original Change Order No. 100 provided modifications to the planned seismic joint as requested by Mike Whiteside the YBI Coordination Engineer. Compensation for the added fabrication cost of the joints was provided under that change order.

The original change order also provided modifications to the steel barrier plates which span the seismic joint and cover the concrete barrier at the gap between the joint. The costs of the modifications to the steel plates were deferred under that change order. This change order provides compensation for these deferred costs.

The modifications to the barrier plates extended the length of the plates by approximately 1.2 meters on the westbound structure and 1.5 meters on the eastbound structure. The added costs include fabricating the additional plate length for the 12 mm thick barrier plates which include both the exterior bent plate and the interior bent plate for each of the 4 barriers. The additional plate length will also require a total of 64 additional steel studs to be furnished and welded onto the inside of the interior plates.

Compensation for these costs will be paid as Extra Work at Agreed Lump Sum of \$12,859.00, which shall be financed from the contract's contingency funds. A detailed cost analysis is on file.

The Toll Bridge program Oversight Committee approved costs not to exceed \$500,000.00 pertaining to the barrier plate fabrication costs and the installation of the barrier plate and seismic joint at their September 8, 2011 meeting. This change order falls within that approved cost.

No adjustment of contract time is warranted as the work does not affect the controlling operation.

Maintenance concurrence is required as this change will affect permanent Caltrans' owned features.

EA: 0120S4

CCO: 100 - 1

DATE: 8/25/2011

Page 2 of 2

| CONCURRED BY: | | | ESTIMATE OF COST | | | |
|--------------------------------|------------------------------|------|--|--|--|--|
| Construction Engineer: | William Howe | Date | THIS REQUEST TOTAL TO DATE | | | |
| Bridge Engineer: | Mehran Ardakanian | Date | ITEMS \$0.00 (\$500,000.00) FORCE ACCOUNT \$0.00 \$0.00 | | | |
| Project Engineer: | Bob Zandipour, Design | Date | FORCE ACCOUNT \$0.00 \$0.00 AGREED PRICE \$12,859.00 \$2,280,472.00 | | | |
| Project Manager: | Ken Terpstra | Date | ADJUSTMENT \$0.00 \$0.00 | | | |
| FHWA Rep.: | | Date | TOTAL \$12,859.00 \$1,780,472.00 | | | |
| Environmental: | | Date | FEDERAL PARTICIPATION | | | |
| Other (specify): | Lina Ellis, Str. Maintenance | Date | PARTICIPATING ☐ PARTICIPATING IN PART ☑ NONE ☐ NON-PARTICIPATING (MAINTENANCE) ☐ NON-PARTICIPATING | | | |
| Other (specify): | | Date | FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type) | | | |
| District Prior Approval B | y. | Date | ✓ CCO FUNDED PER CONTRACT CCO FUNDED AS FOLLOWS | | | |
| HQ (Issue Approve) By | | Date | FEDERAL FUNDING SOURCE PERCENT | | | |
| Resident Engineer's Signature: | | Date | | | | |
| | | | | | | |

Engineer

CONTRACT CHANGE ORDER

Change Requested by:

CCO: 100 Suppl. No. 0 Contract No. 04 - 0120S4 Road SF-80-12.7/13.2 FED. AID LOC.: NO FED AID

To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Incorporate the revisions to the Hinge K closure details and the Hinge KE and KW expansion joint details of the Yerba Buena Island Transition Structure (Br. No. 34-0006 L/R) into the Contract as shown on Sheets No. 3 through 15 of this change order (Contract Plan Sheets 679R1, 680R1, 681R1, 697R2, 698R2, 699R2, 700R2, 701R2, 702R2, 703R2, 704R2, 705R2 and 705AS).

Estimate of Decrease in Contract Item at Contract Price:

Item No. 106: SEISMIC JOINT (HINGE KW)

-1LS (-100.00%) @\$250.000.00 /LS = -\$250.000.00 (-100.00%)

Item No. 109: SEISMIC JOINT (HINGE KE)

-1LS (-100.00%) @3250.000.00 /LS = -\$250.000.00 (-100.00%)

Total cost for Decrease in Contract Item.....(\$500,000.00)

In accordance with Section 4-1.03B(3), "Eliminated Items," of the Standard Specifications, the adjustment due to the elimination of Item No.106 "Seismic Joint (Hinge KW)" and Item No. 109 "Seismic Joint (Hinge KE)" is zero.

Extra Work at Lump Sum:

Provide compensation to the Contractor for all costs associated with furnishing the Hinge KE and KW expansion joints as specified under this change order.

For these costs, the Contractor shall be compensated an agreed lump sum of \$2,267,613.00 which constitutes full and final compensation, including all markups, for furnishing the expansion joints as modified by this change order.

Compensation provided under this change order includes all costs associated with the fabrication of the Hinge KE and KW expansion joints including the deck plates, support plates, Trelleborg Transflex 2400 (including support bars and all connection hardware), channel assemblies and neoprene sheets and pads including all appurtenances associated with these items except as excluded herein. Compensation also includes the transportation of the joints to the project site.

Any costs pertaining to the installation and jobsite storage of the expansion joints shall be deferred and shall be provided under a supplemental change order.

The cost of furnishing the elastomeric concrete, galvanized steel gutters and anchor bolts, polyethylene foam or glazed open cell backer rod, silicone seal, fast setting hydraulic cement concrete and self consolidating concrete shall be deferred and shall be provided under a supplemental change order.

Any adjustment of compensation concerning changes to the Hinge K closure reinforcing steel and mechanical couplers shall be deferred and shall be provided under a supplemental change order.

Any adjustment of compensation or contract item quantity adjustment concerning Contract Bid Item #149 (CONCRETE BARRIER (TYPE 732 MODIFIED) and #194 (MODIFY CONCRETE BARRIER TYPE 732 (MOD)) shall be defferred and shall be provided under supplemental change order.

Cost of Extra Work at Lump Sum\$2,267,613.00

Change Requested by:

Engineer

CCO 100

Suppl. No. 0

Contract No. 04 - 0120S4

Road SF-80-12.7/13.2

FED. AID LOC .: NO FED AID

.....

| By reason of this order the time of completion will be adjust Submitted by | ted as follows: Deferred | |
|---|---|--------------------|
| Signature Oldmer Vilden | Resident Engineer William Howe, Senior R.E. | Pate/14/1 |
| Approval Recommended by | | Harris Miles Andre |
| Signature Mirland France | Construction Manager Mike Forner | Date 9-15-11 |
| Engineer Approval by | | |
| Signature Michael Four | Construction Manager Mike Forner | Date 11/11 |

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

| Signature Al anle | (Print name and title) PAMES A. CARTER, PRESIDENT | Date (0/4/11 |
|-------------------|--|--------------|
| A Carre | JANES A. CHAICK, PRESIDENT | 10/7/ |

7.16.2011

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONTRACT CHANGE ORDER MEMORANDUM FILE: E.A. 04 - 012054 TO: Deanna Vilcheck, ACM / CO-RTE-PM SF-80-12.7/13.2 FROM: William Howe, Senior R.E. FED. NO. NO FED AID Category Code: CHPT CONTINGENCY BALANCE (incl. this change) SUPPLEMENT#: CCO#: \$87,994,343.49 100 INCREASE DECREASE HEADQUARTERS APPROVAL REQUIRED? NO COST: ✓ YES \$1,767,613.00 IS THIS REQUEST IN ACCORDANCE WITH YES □ NO SUPPLEMENTAL FUNDS PROVIDED: \$0.00

DATE: 8/16/2011

Page 1 of 2

| Hinge K Seismic Johns | ni Structures) | | | |
|-------------------------|------------------------|--|--|---|
| Original Contract Time: | Time Adj. This Change: | Previously Approved CCO Time Adjustments: | Percentage Time Adjusted: (including this change) | Total # of Unreconciled Deferred Time CCO(s): (including this change) |
| 1390 Day(s) | DEF Day(s) | 0 Day(s) | 0 % | 9 |

ENVIRONMENTAL DOCUMENTS?

VPITC 1 (Vorba Buona Island Transition Ctrustum

PROJECT DESCRIPTION:

THIS CHANGE ORDER PROVIDES FOR:

CCO DESCRIPTION:

Revisions to the Hinge K closure details and associated seismic expansion joints.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) to the existing Yerba Buena Island (YBI) tunnel. The structures are comprised of concrete box girder bridges each approximately 26 meters wide, 40 meters high and 450 meters in length.

At the eastern end of the structures, the contract provides for the installation of two separate seismic expansion joints at Hinge K which connects the YBITS structure to the adjacent Self-Anchored Suspension Bridge (SAS). The as-bid seismic joints are each comprised of a 21 meter long by 4 meter wide steel deck plate assembly which rests upon a steel support plate. Mike Whiteside the YBI Coordination Engineer has requested modifications to these joints which are being incorporated under this change order.

The major modifications to the joints include changing the deck plate from a tapered plate to a uniform thickness, adding a 1 meter wide joint seal across the length of the joint and modifying the surface of the plate to provide an improved friction pattern. Numerous miscellaneous plates and brackets are also required to provide a more detailed connection of the plates. In order to mitigate potential delays to the project, this change order provides for the fabrication of the expansion joints. A supplemental change order shall provide for the installation of the joints and for changes to the hinge reinforcing steel.

The major costs associated with this work include furnishing the 48 square meters of joint seal and approximately 20 metric tons of additional steel fabrication costs associated with the larger plates. Additional costs will also be incurred due to the more difficult surface treatment being milled from the plate. Furnishing the added joint seal accounts for the majority of the added costs as the seal is a unique product that requires extensive fabrication methods.

Due to the significant changes to the as-planned joints, the 2 lump sum contract bid items providing for furnishing and installing these joints shall be eliminated resulting in a credit of \$500,000.00. Compensation for furnishing the 2 modified expansion joints will be paid as extra work at an agreed lump sum of \$2,267,613.00. The net change order cost of \$1,767,613.00 shall be financed from the contract's contingency funds. A detailed cost analysis is on file.

Any costs pertaining to the installation and jobsite storage of the joints along with any costs associated with the modifications to the hinge details provided under this change order shall be deferred and shall be provided under a supplement to this change order. The total cost of this change including this change order and all future supplements is anticipated not to exceed \$2,300,000.

This change order was approved by the Toll Bridge Program Oversight Committee on September 8, 2011.

Adjustment of contract time is deferred as the work may affect the controlling operation.

Maintenance concurrence required as this change will affect permanent caltrans owned features.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call: (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

| CONCURRED BY: | | | | ESTIMATE OF C | OST | |
|-----------------------------|-----------------------------|---------------|------------------------------------|-----------------------------|--|--------------------------|
| Construction Engineer: V | Villiam Howe | Date 4/19/11 | | THIS REQUES | ST | TOTAL TO DATE |
| Bridge Engineer: N | lehran Ardakanian | Date 9 16 11 | ITEMS | (\$500,000.0 | - 100 P | (\$500,000.00) |
| | ob Zandipour Design | Date 19 11 11 | FORCE ACCOUNT AGREED PRICE | \$0.0 \$2,267,613.0 | | \$0.00 \$2,267,613.00 |
| Project Manager: K | en Terpstra | Date 9 | ADJUSTMENT | \$0.0 | | \$0.00 |
| FHWA Rep.: | M | Date | TOTAL | \$1,767,613.0 | 00 | \$1,767,613.00 |
| Environmental: | | Date | | FEDERAL PARTICIPA | ATION | |
| | ina Ellis, Str. Maintenance | Date 10 18 11 | ☐ PARTICIPATING ☐ NON-PARTICIPATIN | PARTICIPATING (MAINTENANCE) | and the same of th | NONE PARTICIPATING |
| Other (specify): | | Date | FEDERAL SEGREGATION | | | |
| District Prior Approval By: | | Date | CCO FUNDED PER | | and the second second | D AS FOLLOWS |
| HQ (Issue .Approve) By: | Larry Salhaney | Date 7 16 11 | FEDERAL FUNDING | SOURCE | PERCE | NT |
| Resident Engineer's Signatu | ire: | Date | | | | |
| William to | towl | 09-19-11 | | | | |



TBPOC MEETING OUTCOME September 8, 2011 2:30pm – 5:00pm Mission Bay Office, 325 Burma Road, Oakland

| | Topic | Presenter | Outcome |
|----|---|----------------------------------|----------------------------|
| 1. | CHAIR'S REPORT | S. Heminger, BATA | Information |
| 2. | a. TBPOC Meeting Minutes: 1) August 3, 2011 Conference Call Minutes | A. Fremier, BATA | APPROVED |
| | b. Contract Change Orders (CCOs): 1) SAS CCO 73 (Bike Path Conduit Modifications), not to exceed \$1,600,000 2) SAS CCO 179 (Skyway Bike Path Railing Modifications – For Information Only – Final), \$3,065,595 3) YBITS No. 1 CCO 1-S3 (Maintain Traffic on Macalla Road), \$1,500,000 4) YBITS No. 1 CCO 76-S1 (OTD Seismic Expansion Joints), not to exceed \$3,000,000 5) YBITS No. CCO 100-So (\$1,767,613) & S1 (not to exceed \$500,000), (Hinge K Seismic Expansion Joints) | D. Noel, CTC | APPROVED |
| | c. 2012 TBPOC Meeting Calendar | A. Fremier, BATA | APPROVED |
| 3. | PROGRAM ISSUES a. Yerba Buena Island Ramps | T. Anziano, CT | Information |
| | SFOBB West Span Pathway Project Initiation Document (PID) Update | P. Lee, BATA | Information |
| | c. Gateway Park Transportation Enhancements (TE) Funding Application | S. Maller, CTC | Information |
| 4. | PROGRESS REPORTS a. TBSRP Second Quarter 2011 Risk Management Update | J. Tapping, CT | Information |
| | b. Project Progress and Financial Update August 2011 | P. Lee, BATA | APPROVED |
| 5- | SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Self-Anchored Suspension (SAS) Span 1) Update | T. Anziano, CT | Information |
| | b. Yerba Buena Island Transition Structure (YBITS) No. 1 1) Update 2) Hinge K Update | T. Anziano, CT T. Anziano, CT | Information Information |



TBPOC MEETING OUTCOME September 8, 2011 2:30pm – 5:00pm Mission Bay Office, 325 Burma Road, Oakland

| | Topic | Presenter | Outcome |
|----|---|----------------|-------------|
| | c. YBITS No. 2/ Demolition Contract 1) Update | B. Maroney, CT | Information |
| | d. Oakland Touchdown (OTD) No. 2 1) Plans, Specifications and Estimates (PS&E) | P. Lee, BATA | APPROVED |
| 6. | ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES a. Update | M. Forner, CT | Information |
| 7- | SAN MATEO-HAYWARD BRIDGE RETROFIT REHABILITATION UPDATE a. Update | M. Pazooki, CT | Information |
| 8. | OTHER BUSINESS | | |

Oakland Touchdown Detour CCOs to YBITS (04-0120S4)

INTRODUCTION

This contract calls for the construction of the Yerba Buena Island Transition structures of the east span of the new San Francisco Oakland Bay Bridge (SFOBB). In a memo dated October 3, 2010, the Deputy Toll Bridge Program Manager recommended to the Toll Bridge Program Oversight Committee (TBPOC) that the Temporary OTD Detour be done under Contract Change Orders. This recommendation was approved by the TBPOC in their October 7, 2010 meeting. Subsequently, a Contract Change Order Implementation Strategy with a working budget of \$51 Million was presented to the TBPOC on February 03, 2011 and it was approved.

SCOPE OF WORK

Scope of work currently associated with the Oakland Touchdown Detour project have been assigned into the following categories:

| | | Approved budget | In Progress Status | Update 12/20/2011 |
|----------|--|-----------------|-------------------------------|--------------------|
| Category | Scope of Work | (Feb. 24, 2011) | | |
| ပ္မ | | (Million) | Current Forecast (Million) | Delta (Million) |
| 1 | EB roadway and prep work budget | \$11.36 | \$9.06 | (\$2.30) |
| 2 | WB roadway and structure budget | \$25.69 | \$30.37 | \$4.68 |
| 3 | Bridge Opening 2013 & Job wide Expenses | \$5.89 | \$7.39 | \$1.50 |
| Subtot | al | \$42.94 | \$46.82 | \$3.88 |
| Contin | gency | \$8.06 | \$4.18 | |
| Total | | \$51 | \$51.00 | |

CCO payments to date as of November 20, 2011 is \$ 8.734 Million
As shown, the current status of the CCOs required to construct the Oakland Touchdown Detour is \$46.82M.
The status of each category of work is discussed in the succeeding pages of this report.

1. E/B ROADWAY AND PREP WORK

| | ent od | | | TRROC | | Approved | from Feb 3, 2 | Status Update 011 Approved dget |
|-------------|--|--|-----------|--|---------------------|----------------------|--------------------------------|--|
| cco | PPIEMENTS FA Advance Site Survey FA Advance Site SurveySupplemental funds FA Site SurveySupplemental funds FA Site SurveySupplemental funds PPIEMENTS SUBSTITUTE SUBSTITU | Description | HQ Status | TBPOC Status | CCO Status | Budget 02-03-2011 | Current Estimated Amount | Current vs. 02-03-11 budget (Under budget = negative) |
| 501 | | Advance Utility Location and Identification | Issued | N/A | Executed 11/22/10 | \$180,000 | \$180,000 | \$0 |
| | • • | | I | NI/A | E | # 200 000 | \$450,000 | |
| 502 | | · | Issued | N/A | 11/22/10 | \$300,000 | \$150,000 | |
| 502s1 | | , | Issued | N/A | Executed 1/13/11 | \$0 | \$150,000 | |
| 502s2 | FA | Site SurveySupplemental funds | Issued | N/A | Executed 4/28/11 | \$0 | \$250,000 | |
| | | | | | | \$300,000 | \$550,000 | \$250,000 |
| 503 | FA | Traffic control for advance work | Issued | N/A | Executed 2/24/11 | \$150,000 | \$150,000 | \$0 |
| 503s1 | FA | Additional funds Traffic control | Issued | N/A | Executed 8/9/11 | | \$150,000 | \$150,000 |
| 504 | LS | Advance Geotechnical Investigation | Issued | N/A | Executed 3/30/11 | \$41,866 | \$41,866 | \$0 |
| 505 | FA | Relocate PG & E Electrical Lines | Issued | N/A | Executed 2/24/11 | \$150,000 | \$150,000 | \$0 |
| 505s1 | FA | Addl funds Relocate PG & E Electrical Lines | Issued | N/A | Executed 8/01/11 | | \$40,000 | \$40,000 |
| 506 | UP+FA | Pave Burma Road Extension | Issued | N/A | Executed 5/23/11 | \$641,427 | \$641,427 | \$0 |
| 507 | FA | SWPPP Measures (Burma Road and Eastbound | Issued | N/A | Executed 4/7/11 | \$565,110 | \$500,000 | (\$65,110) |
| 508 | FA | , | Issued | N/A | Executed 3/8/11 | \$150,000 | \$150,000 | \$0 |
| 509 and Su | pplements | 1 | | | | | | |
| 509 | | EBMUD Sewer Outfall Pipe Overcrossing | Issued | N/A | Executed 5/25/11 | \$690,000 | \$996,441 | |
| 509s1 | | EBMUD Sewer Outfall Pipe Overcrossing Concrete additive | Issued | Okd 6/2/11 | Executed 6/6/11 | \$0 | \$50,023 | |
| 509 and Su | pplements | | | , -, · · | 5, 5, 1, 1 | \$690,000 | \$1,046,464 | \$356,464 |
| 510 | FA | Relocate Port of Oakland Electrical Duct | Issued | N/A | Executed 03/08/11 | \$100,000 | \$50,000 | (\$50,000) |
| 510s1 | FA | Relocate Port of Oakland Electrical Duct | Issued | N/A | Executed 08/01/11 | \$0 | \$50,000 | \$50,000 |
| 511 | FA | Off-Haul and Disposal of Contaminated Soil | Issued | N/A | Executed 03/08/11 | \$150,000 | \$150,000 | \$0 |
| future | | Addl removal contaminated soil | N/A | N/A | future | \$51,750 | \$51,750 | \$0 |
| 512 | EST | Protective Cover Over PG & E Gas LineVoid (not reqd) | N/A | N/A | Not required | \$60,375 | \$0 | (\$60,375) |
| 513 528 an | d 531 | | | | | | | |
| 513 | UP | Eastbound Roadway (inc drainage, AC, lane closures) | Issued | OK'd NTE \$2.5 Mill 4/7/2011; Final OK'd 5/5/11 | Executed 06/03/11 | \$3,032,846 | \$2,011,269 | |
| 528 | FA | AC QC | Issued | N/A | Executed 08/31/11 | \$0 | \$100,000 | |
| 531 | FA | Buried Manmade Objects | Issued | N/A | Executed 06/28/2011 | \$0 | \$100,000 | |
| 513 528 & 5 | 531 subtota | al | | | | \$3,032,846 | \$2,211,269 | (\$821,577) |
| 514 | FA | Dewatering | Issued | N/A | Executed 5/13/11 | \$0 | \$150,000 | \$150,000 |
| 515 | FA | Vibration and Crack Monitoring | Issued | N/A | Executed 3/14/11 | \$0 | \$150,000 | \$150,000 |
| 516 | FA | Eastbound Electrical inc Traffic Operations System; Lighting | Issued | N/A | Executed 09/07/2011 | \$1,074,675 | \$800,000 | (\$274,675) |
| 517 | UP | AC Approach Ramps for EBMUD Overcrossing | Issued | N/A | Executed 06/03/2011 | \$676,591 | \$283,104 | (\$393,487) |

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| 518 | LS | Relocate changeable message sign (CMS) | Issued | N/A | Executed 07/12/2011 | \$182,250 | \$140,511 | (\$41,739) |
|-------------|----------|---|------------------|-----|---------------------|--------------|-------------|---------------|
| 519 | UP | Maintain Burma Road Maritime to Western End | Issued | N/A | Executed 4/29/11 | | \$260,660 | \$260,660 |
| 519s1 | FA | Maintain Burma Road Maritime to Western End Addl work | Potential I&A | N/A | Not written | | \$100,000 | \$100,000 |
| 520 | FA | Relocate ATT ducts | Issued | N/A | Executed 4/29/11 | \$301,875 | \$150,000 | (\$151,875) |
| 532 | LS | ESA fences / protection | N/A | N/A | Executed 08/01/11 | \$44,896 | \$42,163 | (\$2,733) |
| 532s1 | LS | Additional Gate for ESA fences | N/A | N/A | Executed 10/21/11 | | \$1,568 | \$1,568 |
| not reqd | EST | PG & E on exis frontage road (not reqd) | N/A | N/A | Not reqd | \$736,575 | \$0 | (\$736,575) |
| future | EST | Other utility relocation: san, storm, MH's | Potential I&A | N/A | Not written | \$368,287 | \$368,287 | \$0 |
| 525 and 53 | 0 | | | | | | | |
| see 525 and | d 530 | Ebound & Burma R/R Stripes, Markers, | | | | \$93,054 | | |
| | | Pavement Delineation | | | | | | |
| see 525 and | d 530 | Eastbound Stripes, Markers, Signs, Detour Traffic Enhancements | | | | \$533,140 | | |
| 525 | UP | Eastbound Striping | Issued | N/A | Executed 10/10/11 | | \$134,949 | |
| 530 | UO | Eastbound Signs | Issued | N/A | Executed 10/10/11 | | \$62,306 | |
| 525 & 530 | subtotal | Eastbound Signs and Striping | | | | \$626,194 | \$197,255 | (\$428,939) |
| 537 | EST | Eastbound Roadway (addl conform paving staging, and drainage revisions) | Potential I&A | N/A | Not written | \$305,000 | \$150,000 | (\$155,000) |
| 523 and Su | pplement | s | | | | | | |
| 523 | FA | R/Replace Krail (or type 60) with fence on top | Issued | N/A | Executed 05/20/11 | \$421,742 | \$150,000 | |
| not reqd | EST | R/Replace chain link fence (not reqd) | N/A | N/A | Not reqd | \$353,556 | | |
| 523 subtot | al | Eastbound K Rails | | | | \$775,298 | \$150,000 | (\$625,298) |
| Subtotal 1. | E/B ROAI | DWAY AND PREP WORK | | | | \$11,355,015 | \$9,056,324 | (\$2,298,691) |

2. WESTBOUND ROADWAY AND STRUCTURE

| | ent | | | ТВРОС | | Approved | from Feb 3, 2 | Status Update 011 Approved Iget |
|------------------------------|-----------------------|---|----------------------|--|-------------------------|--------------------------|--------------------------------|--|
| cco | Payment Method | Description | HQ Status | Status | CCO Status | Budget 02-03-2011 | Current Estimated Amount | Current vs. 02-03-11 budget (Under budget = negative) |
| 521 | EW@UP | FURNISH STEEL PILING (HP 360 X 132) | Issued | N/A | Executed 4/29/11 | \$989,034 | \$828,147 | (\$160,887) |
| | | kers, Signs, Detour Traffic Enhancements | | | | | | |
| see below | EST | Westbound Stripes, Markers, Signs, Detour | Potential | N/A | Not written | \$645,760 | | |
| 543, 544 | EST | Traffic Enhancements | I&A N/A | N/A | Not weitten | | ФE0 000 | |
| 543 544 | UP | Westbound Signs Westbound Stripes and Markers Stage 2 work | N/A N/A | N/A | Not written Not written | | \$50,000 \$38,859 | |
| 544 | 01 | Westbound Stripes and Markers Stage 2 Work | IN/A | IN/A | Not writter | | ψ50,055 | |
| 544s1 | EST | Westbound Stripes and Markers | Potential I&A | N/A | Not written | | \$110,000 | |
| future | EST | Detour Traffic Enhancements | Potential I&A | N/A | Not written | | \$445,000 | |
| | 49, 550 su | | | | | \$645,760 | \$643,859 | (\$1,901) |
| | | und Lane Closures | | | | | | |
| 536 | EST | Lane closures for Westbound | Issued | N/A | Executed 08/30/11 | \$2,054,802 | \$515,365 | |
| future | EST | Lane closures Supplement | Potential I&A | Future | Not written | | \$1,539,437 | |
| 549 | EST | Close the westbound bridge: Portable Changeable Message Signs | Potential I&A | Request Jan 2012: Total req will be \$1.7M (0.5M Risk) | Processing | \$0 | \$1,200,000 | |
| 550 | EST | Close the westbound bridge: Traffic Control | Potential | Future | Not written | \$0 | \$250,000 | |
| 554 | EST | OTDD Costs Related to Westbound Full Closure | I&A Potential | N/A | Not written | \$0 | \$750,000 | \$750,000 |
| 334 | ESI | (President's Day Weekend 2012) | I&A | IN/A | Not written | ΦΟ | \$750,000 | \$750,000 |
| WESTBOU | IND LANE (| CLOSURE subtotal | | | | \$2,054,802 | \$4,254,802 | \$2,200,000 |
| 535 | EST | Westbound Electrical inc Traffic Loops, Lights, Reconnect existing bridge structure electrical | Potential I&A | N/A | Not written | \$1,652,463 | \$750,000 | (\$902,463) |
| future supp | EST | | Potential | Future | Not written | | \$752,463 | \$752,463 |
| 548 | EST | Electrical Temporary Relocation of Electrical Lighting | N/A | N/A | Processing | | \$150,000 | \$150,000 |
| 534 | EST | Westbound changeable message sign (CMS) | Issued | N/A | Executed 09/26/11 | \$214,200 | \$170,084 | (\$44,116) |
| future | EST | Add overhead road sign | | | Not written | \$431,077 | \$431,077 | \$0 |
| Note: CCC | 526: \$6.1 re tracked | d Roadway Work million (NTE) has been approved by POC, that i as shown for each line item, total values showr | on Subtota | al line belo | w | | | |
| 523s1 | EST | K-Rail Supplement for Westbound Concrete Barrier | Potential I&A | N/A | Processing | \$305,449 | \$300,000 | (\$5,449) |
| see 526 | EST | Westbound Chain Link Fence (scope now in 526) | | | | \$545,210 | | (\$545,210) |
| see 526 | EST EST | Westbound Roadway Work (inc in 526) Westbound drainage (inc in 526 and 546) | | | | \$4,742,448 \$582,159 | | (\$4,742,448) (\$582,159) |
| see 526 541 | EST | Westbound Polyester Concrete Overlay | Potential I&A | N/A | Not Written | \$582,159 | \$500,000 | \$500,000 |
| 526 | UP+FA | Westbound Roadway Work See *Note above | I&A Appd 11/28/11 | For Info 12/1/11 Ok'd | Processing | \$0 | \$2,774,851 | \$2,774,851 |
| 526 future supplemen t | | Westbound Roadway Work Future supplement | I&A | Future | Future | \$0 | \$1,375,149 | \$1,375,149 |
| 545 | EST | Health and Safety Measures | N/A | N/A | Processing | \$0 | \$80,000 | \$80,000 |
| 546 | FA | Temporary Drainage Measures | N/A | N/A | Processing | \$0 | \$50,000 | \$50,000 |
| 553 | FA | Temporary Roadway to Provide Safe Access | N/A | N/A | Processing | \$0 | \$50,000 | \$50,000 |

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| 523s1, 526 | | | | 6/2/11 \$6.1 million (NTE) OK'd | | \$6,175,266 | \$5,130,000 | (\$1,045,266) |
|------------------------------|-----------|---|----------------------|---|----------------------|---------------|-------------------|-------------------|
| | | cture Foundations s been approved by POC, that includes these lis | sted line ite | ms. Total v | alues are sho | wn on the Sub | total line below | |
| see 524 | | STRUCTURE EXCAVATION (BRIDGE) | | | | \$553,859 | | (\$553,859) |
| see 524 | | STRUCTURE BACKFILL (BRIDGE) | | | | \$194,642 | | (\$194,642) |
| see 524 | | DRIVE STEEL PILE (HP 360 X 132) | | | | \$516,935 | | (\$516,935) |
| see 524 | | STRUCTURAL CONCRETE, BRIDGE FOOTING | | | | \$1,439,540 | | (\$1,439,540 |
| see 524 | | BAR REINFORCING STEEL (BRIDGE) | | | | \$684,000 | | (\$684,000 |
| 524 | UP | Westbound Structure Foundations Sonic | Issued | N/A | Executed | \$0 | \$946,506 | \$946,506 |
| 504.4 | 10.54 | drilling and drive piles portion | | 01411 | 5/20/11 | Φ0 | 04.477.000 | 04 477 000 |
| 524s1 | LS+FA | Westbound Structure Foundations Excavation, Backfill, Bar Reinforcing, Concrete | Issued | OK'd 8/03/2011 | Executed 8/24/11 | \$0 | \$1,177,002 | \$1,177,002 |
| 524s2 | LS | Westbound Structure Foundations additional Sonic drilling, concrete, rebar changes | I&A Appd 11/28/11 | For Info 12/1/11 | Processing | \$0 | \$41,163 | \$41,163 |
| 524 future | EST | Westbound Structure Foundations | Potential | Ok'd Future | Not Written | \$0 | \$470,000 | \$470,000 |
| supplemen ts | 201 | Westbound directore i dundations | I&A | 1 diale | Not written | ΨΟ | ψ+7 0,000 | ψ+7 0,000 |
| 551 | FA | Shore Exis Roadway at Bent E39 | N/A | N/A | Processing | \$0 | \$50,000 | \$50,000 |
| 552 | FA | Remove Traveler Rails under Existing Westbound | N/A | N/A | Processing | \$0 | \$25,000 | \$25,000 |
| 524 Subtot | al Westbo | und Foundations | | 5/5/11 \$3.5 million (NTE) | | \$3,388,976 | \$2,709,671 | (\$679,305) |
| 527 | | Westbound advance Field Investigations and Potholing | Issued | OK'd N/A | Executed 5/20/11 | \$0 | \$180,000 | \$180,000 |
| 533 | | Lead Paint Abatement | Issued | N/A | Executed | \$0 | \$150,000 | \$150,000 |
| 533s1 | | Lead Paint Abatement Supplemental | I&A Appd 11/14/11 | N/A | 9/1/11 Processing | \$0 | \$150,000 | \$150,000 |
| | | port walls and Superstructure s been approved by POC, that includes these lis STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N) | sted line ite | ms. Total v | alues are sho | \$109,849 | total line below | (\$109,849 |
| 529 | | STRUCTURAL CONCRETE, BRIDGE Westbound Support Walls and Strap Beams | Potential I&A | For Info Jan 2012 | Processing | \$2,877,760 | \$2,968,027 | \$90,267 |
| 539 | EST | FURNISH STRUCTURAL STEEL (BRIDGE) | I&A | N/A | Executed 10/27/11 | \$264,072 | \$500,000 | \$235,928 |
| 539 s1 | FA | FURNISH STRUCTURAL STEEL (BRIDGE) Supplement added dwgs but not cost | I&A Appd 11/14/11 | N/A | Processing | | \$0 | \$0 |
| 539 future supplemen t | FA | FURNISH STRUCTURAL STEEL (BRIDGE) Potential Supplement | Potential I&A | N/A | Potential | | \$400,000 | \$400,000 |
| 540 | LS+FA | ERECT STRUCTURAL STEEL (BRIDGE) | I&A Appd 11/28/11 | For Info 12/1/11 Ok'd | Processing | \$322,754 | \$1,769,910 | \$1,447,156 |
| see 529 | | CONCRETE BARRIER (TYPE 732 MODIFIED) | | Not rec | ıd (use K Rail) | \$217,587 | | (\$217,587 |
| see 529 | | Westbound Mechanical and water lines | | | | \$838,206 | | (\$838,206) |
| see 529 | | Surface Drainage and Groundwater Control from below the existing bridge | | | | \$821,100 | | (\$821,100) |
| 538 | EST | Bridge Demolition Plan | N/A | N/A | Executed 10/10/11 | \$0 | \$50,000 | \$50,000 |
| see 529 | | BRIDGE REMOVAL (PORTION) (1st Cut) | | | | \$1,022,002 | | (\$1,022,002) |
| see 529s1 | | FURNISH and ERECT PRECAST | | | | \$1,530,530 | | (\$1,530,530) |
| 529s1 | EST | PRESTRESSED CONCRETE GIRDER Westbound Superstructure Work | Potential | Future | Draft NTE | \$0 | \$3,650,000 | \$3,650,000 |
| 529 subtota | al Westbo | und Support Walls and Superstructure Work | I&A | 6/2/11 \$8.0 million (NTE) OK'd | Only | \$8,003,860 | \$9,337,937 | \$1,334,077 |

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| 542 | EST | Relocate Column Bent E27 | Potential I&A | N/A | Not Written | \$0 | \$800,000 | \$800,000 |
|-------------|--------|---|------------------|---------------------|-------------|--------------|--------------|-------------|
| 547 | EST | Bridge Jacking | Potential I&A | Request Jan 2012 | Processing | \$0 | \$1,200,000 | \$1,200,000 |
| future | EST | SWPPP measures for Westbound work | Potential I&A | Future | Not written | \$1,412,775 | \$1,412,775 | \$0 |
| 555 | EST | OTDD Westbound Precision Steel Cuts | Potential I&A | N/A | Not written | \$0 | \$250,000 | \$250,000 |
| 556 | EST | OTDD Backfill at Existing Bridge Structure | Potential I&A | N/A | Not written | \$0 | \$350,000 | \$350,000 |
| Expenses | EST | State furnished Expenses: CONSTRUCTION ZONE ENHANCED ENFORCEMENT PROGRAM (COZEEP) | N/A | N/A | N/A | \$720,000 | \$720,000 | \$0 |
| Subtotal 2. | WESTBO | JND ROADWAY AND STRUCTURE | | | | \$25,688,213 | \$30,370,815 | \$5,432,602 |

3. BRIDGE OPENING 2013 AND JOB WIDE EXPENSES

| | ant od | | | TDDGG | | Approved | from Feb 3, 2 | Status Update 011 Approved Iget |
|-------------------------|-------------------|---|------------------|-----------------|-------------|----------------------|--------------------------------|--|
| cco | Payment Method | Description | HQ Status | TBPOC Status | CCO Status | Budget 02-03-2011 | Current Estimated Amount | Current vs. 02-03-11 budget (Under budget = negative) |
| 72 hr Changeov er | EST | Bikepath Ramp Structure (install during Seismic Safetry changeover) | Potential I&A | N/A | Not written | \$630,000 | \$630,000 | \$0 |
| 72 hr Changeov er | EST | Bridge Removal Upper Deck and WB widening (during Seismic Safetry changeover) | Potential I&A | Future | Not written | \$3,462,000 | \$3,462,000 | \$0 |
| Expenses | EST | State furnished Expenses: Owner Controlled Insurance Program (OCIP) | N/A | N/A | N/A | \$1,800,000 | \$1,800,000 | \$0 |
| Expenses | EST | State furnished Expenses: On Call Hazardous Materials removals | N/A | N/A | N/A | \$0 | \$1,500,000 | \$1,500,000 |
| Subtotal 3. | BRIDGE O | PENING 2013 AND JOB WIDE EXPENSES | | | | \$5,892,000 | \$7,392,000 | \$1,500,000 |

| 4. SUMMARY | | | |
|---|-----------------|-----------------|-----------------|
| | Current budget | In Progress Sta | tus Update from |
| | (Ech 24 2011) | Feb 24, 2011 A | pproved Budget |
| | (Feb. 24, 2011) | Current | Delta |
| Subtotal 1. E/B ROADWAY AND PREP WORK | \$11,355,015 | \$9,056,324 | (\$2,298,691) |
| Subtotal 2. WESTBOUND ROADWAY AND STRUCTURE | \$25,688,213 | \$30,370,815 | \$4,682,602 |
| Subtotal 3. BRIDGE OPENING 2013 AND JOB WIDE EXPENSES | \$5,892,000 | \$7,392,000 | \$1,500,000 |
| SUBTOTAL | \$42,935,228 | \$46,819,139 | \$4,633,911 |
| CONTINGENCY | \$8,064,772 | \$4,180,861 | (\$3,883,911) |
| TOTAL | \$51,000,000 | \$51,000,000 | |

| | 1 | | | Additional Items: Items under District Jurisdiction | | | | | | s | Anothe forting th | | - | | | | | | |
|---|------|---------|----------|---|----------------|--------|-------------------------|-------------|--------|----------|-------------------------------------|----------|-------------------------------|----------|-------------|-----------------------------------|------------|---------------------|----------------|
| Red = updates | | | | | | Mos | t Likely | | | ∯ F | Burma Rd, ROW, Util (Group 6) | Ro | stbound oadway iroup 7) | | moval | Westbound Roadway (Group 9) | Proje | ect Wide oup 10) | Check Group |
| Item | Unit | Unit \$ | 5 | | Qty | Unit | Extension | Probability | Gp> | | 6 | | 7 | | 8 | | 9 | 10 | |
| 7 Rem Base and surfacing YBITS: \$185 OTD1: \$55 | M3 | \$ | 70 | | | | \$ - | 90% | | \$ | - | \$ | - | \$ | - | \$ - | \$ | - | OK |
| add genl cont markup ditto | 5% | \$ | 74 74 | Eastbound W Entire "new" Roadway | 3,431 2,830 | | | | 7 8 | \$ \$ | | \$ | 254,410 | | - 09,628 | \$ - \$ - | \$ \$ | - | OK OK |
| A Roadway Exc YBITS: \$36 OTD1: \$65 | | \$ | 65 | | | | \$ - | 90% | | \$ | - | \$ | - | \$ | - | \$ - | \$ | - | OK |
| add genl cont markup | 5% | - | 68 | Burma Road: Excavate all inc AC and base inc any utility box adjusments | 1,420 | | | | 6 | \$ | 196,164 | | - | \$ | | \$ - | \$ | - | OK |
| ditto ditto | | \$ | | WB I-80 new pavement section | 1,968 1,624 | | \$ 104,304 \$ 86,072 | | 7 9 | \$ \$ | - | \$ \$ | 105,485 - | \$ \$ | | \$ - \$ 87,046 | \$ 6 \$ | - | OK OK |
| ditto | | \$ | 68 | , | | | \$ - | 90% | | \$ | | \$ | _ | \$ | | \$ - | \$ | _ | OK |
| 5 Roadway Exc (type H) YBITS: \$178 OTD1: \$700 | M3 | \$ | 178 | | | | \$ - | 90% | | \$ | - | \$ | - | \$ | • | \$ - | \$ | - | OK |
| add genl cont markup | 5% | \$ | 187 | Burma item to cover structural exc for the EBMUD crossing Probably not much but if it's contaminated, it can be very expensive (Pessimistic scenario) | 150 | \$ 300 | \$ 45,000 | 90% | 6 | \$ | 53,935 | \$ | - | \$ | - | \$ - | \$ | - | OK |
| ditto | | \$ | | EB I-80 Probably not much but if it's contaminated, it can be very expensive (Pessimistic scenario) | - | \$ 200 | \$ - | 90% | 7 | \$ | - | \$ | 8,750 | \$ | - | \$ - | \$ | - | OK |
| ditto | | \$ | | WB I-80 Probably not much but if it's contaminated, it can be very expensive (Pessimistic scenario) | - | \$ 200 | \$ - | 90% | 9 | \$ | - | \$ | - | \$ | - | \$ 8,750 |) \$ | - | OK |
| | | | | | _ | _ | \$ - | 90% | | \$ | | \$ | | \$ | | \$ - | \$ | | OK |
| Embankment fill for ramp at abutment assume soil (not cellular) | M3 | \$ | 50 | | | | \$ - | 90% | | \$ | - | \$ | - | \$ | | \$ - | \$ | - | OK |
| Price est: add genl cont markup | 5% | \$ | 53 | EB None | | | \$ - | 90% | 7 | \$ | - | \$ | - | \$ | - | \$ - | \$ | - | OK |
| ditto | | \$ | 53 | WB embankment at abutment | 4,400 | \$ 53 | \$ 233,200 | 90% | 9 | \$ | | \$ | | \$ | | \$ 243,540 |) \$ | - | OK |
| Work reqd to retain side slopes at embankment maybe retaining wall or | M2 | \$ | 350 | | | | \$ - | 90% | | \$ | | \$ | | \$ | · | \$ - | \$ | | OK |
| other Price est: add genl cont markup | 5% | \$ | 368 | EB None | | | \$ - | 90% | 7 | \$ | - | \$ | - | \$ | - | \$ - | \$ | - | ОК |
| ditto | | \$ | 368 | WB embankment at abutment (N & S sides) | 660 | \$ 300 | \$ 198,000 | 90% | 9 | \$ | - | \$ | - | \$ | - | \$ 203,200 | э \$ | - | OK |

Preliminary--For Deliberative Purposes Only Printed: 12/20/2011

| Red = updates | | | | | | Most l | ikely | | | Group # | Burm ROW (Grou | • | Road | bound dway up 7) | Bridge & Re | bound Widen moval oup 8) | R | estbound oadway iroup 9) | ct Wide up 10) | Check Group |
|---|-------|---------|-----|--|-----------|--------|-----------|-------------|-----|---------|----------------------|--------|-------|------------------------|----------------|-----------------------------------|------|--------------------------------|-------------------|----------------|
| # Item | Unit | Unit \$ | 5 | | Qty | Unit | Extension | Probability | Gp> | | | 6 | | 7 | | 8 | | 9 | 10 | |
| 78 CL 3 AB YBITS: \$57 OTD1: \$70 | M3 | \$ | 60 | | | | - | 90% | | | \$ | - | \$ | - | \$ | - | \$ | - | \$ - | OK |
| add genl cont markup | 5% | \$ | | Burma Road none | | : | - | 90% | 6 | | \$ | - | \$ | - | \$ | - | \$ | - | \$ - | OK |
| ditto | | \$ | | EB I-80 new pavement section | 5,966 \$ | 60 | | | 7 | | \$ | - | \$ 37 | 75,858 | \$ | - | \$ | - | \$ - | OK |
| ditto | | \$ | | WB I-80 new pavement section | 4,922 \$ | 60 | | 90% | 9 | | \$ | - | \$ | - | \$ | - | \$ | 310,086 | \$ - | OK |
| ditto | | \$ | 63 | | | (| - | 90% | | _ | \$ | • | \$ | • | \$ | • | \$ | | \$ • | OK |
| 79 AC YBITS: \$131 OTD1: \$92.5 | TONNE | \$ | 110 | | | ; | - | 90% | | | \$ | | \$ | | \$ | | \$ | - | \$ | OK |
| add genl cont markup | 5% | \$ | 116 | Burma Road new | 3,500 \$ | 124 | 434,000 | 90% | 6 | | \$ 43 | 33,850 | \$ | - | \$ | - | \$ | - | \$ - | OK |
| ditto | | \$ | 116 | Burma Road: use AC to ramp up to EBMUD overcross structure, possible addl work at end of road Pessimist: could need a lot more AC | 300 \$ | 150 \$ | 45,000 | 90% | 6 | | \$ 4 | 47,750 | \$ | - | \$ | - | \$ | - | \$ - | OK |
| ditto | | \$ | 116 | Burma Road overlay none | | : | - | 90% | 6 | | \$ | - | \$ | - | \$ | - | \$ | - | \$ - | OK |
| ditto | | | | EB I-80 new pavement section | 6,479 \$ | 116 | | | 7 | | \$ | - | | 51,028 | | - | \$ | - | \$ - | OK |
| ditto | | \$ | | EB I-80 conform overlay pavement section | 4,176 \$ | 113 | 471,888 | 90% | 7 | | \$ | - | \$ 48 | 84,974 | \$ | - | \$ | - | \$ - | OK |
| ditto | | \$ | | WB I-80 new pavement section | 5,345 \$ | 113 | 603,985 | 90% | 9 | | \$ | - | \$ | - | \$ | - | \$ | 620,437 | \$ - | OK |
| ditto | | \$ | 116 | WB I-80 conform overlay | 11,948 \$ | | 1,350,124 | 90% | 9 | | \$ | - | \$ | - | \$ | - | \$ 1 | ,385,642 | - | OK |
| | | | | pavement section | | | | | | | | | | | | | | | | |

| Red = updates | | | | | Most Lik | ely | | | Group # | Burma Ro ROW, Util (Group 6) | ĺ | Eastbound Roadway (Group 7) | Westbou Bridge Wid & Remov (Group 8 | den al | Westbound Roadway (Group 9) | Project Wide (Group 10) | |
|--|----------|----------------------------|---|----------------------|------------------------|--------------------|-------------------|--------|---------|------------------------------------|----------------|-----------------------------------|--|-----------|-----------------------------------|----------------------------|----------------|
| Item | Unit | Unit \$ | | Qty | Unit I | Extension | Probability | Gp> | | | 6 | 7 | | 8 | 9 | 10 |) |
| AC open graded YBITS: \$none OTD1: \$none | TONNE | \$ 125 | | | \$ | - | 90% | | | \$ - | \$ | | \$ - | Ç | \$ - | \$ - | OK |
| add genl cont markup ditto | 5% | \$ 131 \$ 131 | I-80 new pavement section I-80 conform overlay pavement section | 1,177 \$ 619 \$ | 129 \$ 129 \$ | 151,833 79,851 | 90% 90% | 7 7 | | \$ - \$ - | \$ \$ | 154,400 80,553 | | | | \$ - \$ - | OK OK |
| ditto ditto | | \$ 131 \$ 131 | WB I-80 new pavement section WB I-80 conform overlay pavement section | 899 \$ 2,592 \$ | 129 \$ 129 \$ | 115,971 334,368 | 90% 90% | 9 | | \$ - \$ - | \$ \$ | - | \$ - \$ - | | \$ 117,624 \$ 338,431 | | OK OK |
| Pavement reinf fabric | M2 | \$ 1.00 | | | \$ | | 90% | | | \$ - | \$ | | \$ - | | \$ - | \$ - | OK |
| add genl cont markup | 5% | \$ 1 | Burma Road Overlay now none | | \$ | - | 90% | 6 | | \$ - | \$ | - | \$ - | \$ | \$ - | \$ - | OK |
| ditto | | \$ 1 | none | | \$ | _ | 90% | | | \$ - | \$ | - | \$ - | | \$ - | \$ - | OK |
| Liq asphalt for fabric, overlay add genl cont markup | TONNE 5% | 700 \$ 735 | Burma Road Overlay now | | \$ \$ | - | 90% 90% | 6 | | \$ - \$ - | \$ | | \$ - \$ - | | \$ - \$ - | \$ - \$ - | OK OK |
| ditto ditto ditto | | \$ 735 \$ 735 \$ 735 | EB I-80 conform overlay pavemer WB I-80 conform overlay paveme | 5.30 \$ 14.90 \$ | 700 \$ 700 \$ \$ | 3,710 10,430 | 90% 90% 90% | 7 9 | | \$ - \$ - \$ - | \$ \$ \$ | | \$ - \$ - \$ - | 9 | \$ 10,654 | \$ - \$ - \$ - | OK OK OK |
| ditto | | Ψ 100 | | | Ψ | | 3070 | | | Ψ - | Ψ | | Ψ | Ì | Ψ - | Ψ - | OK |
| on top (or Type 60 barrier) YBITS: \$none OTD1: \$385 Recent D4 prices: \$40 removal + K rail \$90 (or Type 60 \$150) + r/r Fence \$50 Assume re-used K rail at far N and far S sides; center will be one common barrier | | | | | | | | | | | | | | | | | |
| add genl cont markup ditto | 5% | \$ 189 \$ 189 | I-80 N side I-80 S side | 880 \$ 790 \$ | 180 \$ 180 \$ | 158,400 142,200 | 90% 90% | 6 6 | | \$ 164,88 \$ 147,09 | | - | \$ - \$ - | | * | \$ - \$ - | OK OK |
| ditto | | \$ 189 | WB I-80 N side | 940 \$ | 180 \$ | 169,200 | 90% | 6 | | \$ 172,74 | 0 \$ | - | \$ - | | \$ - | \$ - | OK |
| ditto | | \$ 189 | WB I-80 S side: only a small amt reqd, most is already a common wall from the Ebound N side | 300 \$ | 180 \$ | 54,000 | 90% | 6 | | \$ 55,90 | 0 \$ | - | \$ - | | \$ - | \$ - | OK |
| Edgo droin | Ina I | £ 444.00 | | | \$ | - | 90% | | | \$ - | \$ | | \$ - | | ¢ | \$ - | OK |
| Edge drain Est. Price: add genl cont markup | M 5% | \$ 114.00 \$ 120 | EB I-80 N side | 790 \$ | 120 \$ | 94,800 | 90% | 7 | | \$ - | \$ | 94,320 | | | | \$ - | OK |
| ditto ditto | | \$ 120 \$ 120 | EB I-80 S side WB I-80 N side | 1,670 \$ 1,380 \$ | 120 \$ 120 \$ | 200,400 165,600 | 90% 90% | 7 9 | | \$ - \$ - | \$ \$ | | \$ - \$ - | | \$ - \$ 165,240 | \$ - \$ - | OK OK |
| ditto | | | WB I-80 S side | 1,540 \$ | 120 \$ | 184,800 | 90% | 9 | | \$ - | \$ | | \$ - | | \$ 184,320 | | OK |
| Rem / Rep chain link fence YBITS: \$none OTD1: \$200 | M | \$ 200.00 | | | \$ | | 90% | | | \$ - | \$ | | \$ - | | \$ - | \$ - | OK |
| Price from OTD 1 in 2007: add genl cont markup + escalation | 20% | \$ 240 | EB I-80 S Side / Burma Road N side | 850 \$ | 80 \$ | 68,000 | 90% | 6 | | \$ 79,00 | 0 \$ | - | \$ - | | \$ - | \$ - | ОК |
| ditto | | \$ 240 | EB I-80 S Side / Burma Road N side (ends, access gates at EBMUD crossing) | 200 \$ | 240 \$ | 48,000 | 90% | 6 | | \$ 48,00 | 0 \$ | - | \$ - | 5 | \$ - | \$ - | OK |

| R | ted = updates | | | | | Mos | t Likely | | | Group # | R | urma Rd, OW, Util Group 6) | Eastbo Roadw (Group | ay | Westbour Bridge Wid & Remova (Group 8 | len al | Westbound Roadway (Group 9) | Pro | oject Wide Group 10) | Check Group |
|---------------------------|---|------|-----------|-------------------|-------|------------|-----------|-------------|-----|---------|----|----------------------------------|---------------------------|------|--|-----------|-----------------------------------|-----|-------------------------|----------------|
| # | Item | Unit | Unit \$ | | Qty | Unit | Extension | Probability | Gp> | | | 6 | | 7 | | 8 | ę | 9 | 10 | |
| | ditto | | \$ 2 | 40 WB I-80 N side | 830 | \$ 240 | \$ 199,20 | 0 90% | _ | 6 | \$ | 199,200 | \$ | - | \$ - | | \$ - | \$ | _ | OK |
| | ditto | | | 40 WB I-80 S side | 830 | | | | | 6 | \$ | 199,200 | | - | \$ - | : | \$ - | \$ | - | OK |
| | ditto | | | 40 | | | \$ - | 90% | | | \$ | | \$ | - | \$ - | : | \$ - | \$ | - | OK |
| | | | | _ | | | | | | | | | | | | | | | | |
| YI N | Remove / replace stripes PBITS: \$7 (Removal \$5 / m lew Thermo \$2 / m) PDTD1: \$7 | Л | \$ 7. | 00 | | | \$ - | 90% | | | \$ | - | \$ | - | \$ - | : | \$ - | \$ | - | OK |
| | add genl cont markup | 5% | \$ | 7 EB I-80 | 6,000 | \$ 7 | \$ 42,00 | 0 90% | | 7 | \$ | _ | \$ 42 | .000 | \$ - | | \$ - | \$ | _ | OK |
| | ditto | | \$ | 7 WB I-80 | 9,600 | | | | | 9 | \$ | - | \$ | - | \$ - | | \$ 67,200 | | _ | OK |
| | ditto | | \$ | 7 Burma Road | 850 | | | | | 6 | \$ | 6,248 | | - | \$ - | | \$ - | \$ | - | OK |
| | | | | | | | | | | | | | | | | | | | | |
| m YI | Remove / replace pavement E narkers (BITS: \$7 DTD1: \$7 | A | \$ 7. | 00 | | | \$ - | 90% | | | \$ | - | \$ | - | \$ - | ; | \$ - | \$ | - | OK |
| ad | dd genl cont markup | 5% | \$ | 7 EB I-80 | 1,500 | \$ 7 | \$ 10,50 | 0 90% | • | 10 | \$ | - | \$ | - | \$ - | : | \$ - | \$ | 10,500 | OK |
| | ditto | | \$ | 7 WB I-80 | 2,400 | \$ 7 | \$ 16,80 | 0 90% | • | 10 | \$ | - | \$ | - | \$ - | : | \$ - | \$ | 16,800 | OK |
| | | | | | _ | | | | | | | | | | | | | | | |
| | | Α | \$ 1,500. | 00 | | | \$ - | 90% | | | \$ | - | \$ | - | \$ - | : | \$ - | \$ | - | OK |
| | dded mob cost | | | | | | | | | | | | | | | | | | | |
| _ | dd genl cont markup | 5% | | | 5 | | | | | 10 | \$ | - | \$ | - | \$ - | | \$ - | \$ | 7,875 | OK |
| | ditto | | \$ 1,5 | 75 WB I-80 | 5 | \$ 1,575 | \$ 7,87 | 5 90% | | 10 | \$ | - | \$ | - | \$ - | : | \$ - | \$ | 7,875 | OK |
| 10 | Same asserble etales asserble | 0 | ¢ 250.0 | 00 | _ | | • | 000/ | | | • | | <u></u> | | Φ. | | Φ | • | | OK |
| in C di 20 sa | ligns, rumble strips, speed I dicators, etc cost say \$500 K per irection for SS Detour in 009; anticipate better now ay \$350K each direction | | \$ 350,0 | | | | \$ - | 90% | | | \$ | - | \$ | - | \$ - | ; | \$ - | \$ | - | |
| | dd genl cont markup + | 10% | \$ 385,0 | 00 Eastbound | 1 | \$ 380,000 | \$ 380,00 | 0 90% | • | 10 | \$ | - | \$ | - | \$ - | : | \$ - | \$ | 385,750 | OK |
| _ | scalation | | | | | | | | | | _ | | _ | | _ | | _ | _ | | |
| | ditto | | \$ 385,0 | 00 Westbound | 1 | \$ 380,000 | \$ 380,00 | 0 90% | 1 | 10 | \$ | - | \$ | - | \$ - | | \$ - | \$ | 385,750 | OK |

| | Red = updates | | | | | Most | Likely | | | Group # | Burma Rd, ROW, Util (Group 6) | Eastbou Roadwa (Group 7 | nd Br y 8 | Westbound ridge Wider & Removal (Group 8) | n We | estbound oadway Group 9) | Project Wide (Group 10) | |
|------|--|--------|--------------|---|-----|--------------|--------------|-------------|-----|---------|-------------------------------------|-------------------------------|--------------|--|------|--------------------------------|----------------------------|-----|
| # | Item | Unit | Unit \$ | | Qty | Unit | Extension | Probability | Gp> | | 6 | | 7 | 8 | 3 | 9 | 10 | |
| | | shifts | \$ 4,200 | | | | \$ - | 90% | | | \$ - | \$ - | \$ | - | \$ | - | \$ - | OK |
| | closures SS Detour 2009 one direction: M-Th \$3620/shift F \$4210 S \$5240 | | | | | | | | | | | | | | | | | |
| | Sun/Hol \$5240 Avg Est \$4200 / shift | | | | | | | | | | | | | | | | | |
| | add genl cont markup + escalation | 10% | \$ 4,620 | Eastbound: Oct 2010 to Mar 11 26 weeks x avg 3 days / wk | 78 | \$ 4,620 | \$ 360,360 | 90% | 10 | | \$ - | \$ - | \$ | - | \$ | - | \$ 360,360 | OK |
| | ditto | | \$ 4,620 | | 325 | \$ 4,620 | \$ 1,501,500 | 90% | 10 | | \$ - | \$ - | \$ | - | \$ | - | \$ 1,501,500 | OK |
| | | | | | | | | | | | | | | | | | | |
| | Traffic control: Close the whole bridge Estimate assumes not required | events | \$ 2,500,000 | | | | \$ - | 90% | | | \$ - | \$ - | \$ | - | \$ | - | \$ - | OK |
| | Cost from SS Detour in 2009: add genl cont markup + escalation | 10% | \$ 2,750,000 | Eastbound | - | \$ 2,750,000 | \$ - | 90% | 10 | | \$ - | \$ - | \$ | - | \$ | - | \$ 137,500 | OK |
| | ditto | | \$ 2,750,000 | Westbound | | \$ 2,750,000 | \$ - | 90% | 10 | | \$ - | \$ - | \$ | - | \$ | - | \$ 137,500 | OK |
| m | Mechanical Piping on | LS | \$ 350,000 | | | | \$ - | 90% | | | \$ - | \$ - | \$ | | \$ | | \$ - | OK |
| | bridge, to bridge | | - | | | | | | | | • | | | | • | - | | |
| | Eastbound pipes run on bridge but not much in roadway to relocate | 10% | \$ 385,000 | Eastbound remove hydrant (in path of OTD2); various other mech work | 1 | \$ 350,000 | \$ 350,000 | 90% | 6 | | \$ 347,500 | \$ - | \$ | - | \$ | - | \$ - | OK |
| | Should be no water line work on Westbound no pipes run on that bridge | | \$ 350,000 | | | | \$ - | 90% | 6 | | \$ 10,000 | \$ - | \$ | - | \$ | - | \$ - | OK |
| i | Deck drainage: Deck drains are included in Structures estimate, but this is for underground pipes attaching to deck drains | | \$ 150 | Westbound drains | 500 | \$ 150 | \$ 75,000 | 90% | 6 | | \$ 77,750 | \$ - | \$ | - | \$ | - | \$ - | ОК |
| | | | | | | | | | | | | | | | | | | |
| | Electrical on frontage road Raise MH covers to grade | ea | \$ 1,000 | | | | \$ - | 90% | | | \$ - | \$ - | \$ | - | \$ | - | \$ - | OK |
| | Plug: add genl cont markup | 5% | \$ 1,050 | Eastbound | 5 | \$ 1,050 | \$ 5,250 | 90% | 6 | | \$ 5,250 | \$ - | \$ | - | \$ | - | \$ - | OK |
| | ditto | | \$ 1,050 | Westbound none | | | \$ - | 90% | 6 | | \$ - | \$ - | \$ | - | \$ | | \$ - | ОК |
| n2 3 | Electrical on frontage / S | LS | \$ 200,000 | | _ | | \$ - | 90% | | | \$ - | \$ - | \$ | _ | \$ | | \$ - | OK |
| | Electrical on frontage / S Side Relocate UG duct, service utility panel, lighting panel, TOS controller, UG pull boxes, TOS CCTV Camera | LS | \$ 200,000 | | | | \$ - | 90% | | | 5 - | 5 | * | - | Þ | - | 5 - | OK |
| | Plug: add genl cont | 5% | \$ 210,000 | Eastbound | 1 | \$ 210,000 | \$ 210,000 | 90% | 6 | | \$ 210,000 | \$ - | \$ | - | \$ | - | \$ - | OK |
| | markup ditto | | \$ 210,000 | Westbound none | | | \$ - | 90% | 6 | | \$ - | \$ - | \$ | - | \$ | | \$ - | ОК |
| | Electrical dueta 2.011 | 1.0 | 10.000 | | | | Φ. | 2001 | | | Φ. | • | | | _ | | <u></u> | 014 |
| | Electrical ducts S Side Inc into Lane 5, pull boxes | LS | \$ 100,000 | , | | | \$ - | 90% | | | \$ - | 5 - | \$ | - | \$ | - | \$ - | OK |

| | Red = updates | | | | | Most L | ikely | | | Group # | Burma I ROW, U (Group | til | Eastbound Roadway (Group 7) | Bridg & R | stbound ge Widen emoval roup 8) | Roa | bound dway oup 9) | Projec (Grou | | Check Group |
|-------|--|------|------------|---|------|---------|-----------|-------------|-----|---------|-----------------------------|-----|-----------------------------------|--------------|--|-----|-------------------------|-----------------|----|----------------|
| # | Item | Unit | Unit \$ | | Qty | Unit | Extension | Probability | Gp> | | | 6 | 7 | 7 | 8 | | 9 | | 10 | |
| | Plug: add genl cont markup | 5% | \$ 105,000 | Eastbound | 1 \$ | 105,000 | 105,000 | 90% | 6 | | \$ 105, | 000 | \$ - | \$ | - | \$ | - | \$ | - | OK |
| | ditto | | \$ 105,000 | Westbound none | | | - | 90% | 6 | | \$ | - : | \$ - | \$ | - | \$ | - | \$ | | OK |
| | Electrical S Side | | A 05.000 | _ | | 9 | | 90% | | | \$ | - : | Φ | \$ | | \$ | | \$ | | OK |
| n5 | Inc repull cables | LS | \$ 35,000 | | | 3 | - | 90% | | | Ф | - ; | 5 - | Ъ | - | Ъ | - | Ъ | - | ÜK |
| | Plug: add genl cont | 5% | \$ 36,750 | Eastbound none | | 9 | - | 90% | 6 | | \$ | - : | \$ - | \$ | - | \$ | - | \$ | - | OK |
| _ | ditto | | \$ 36,750 | Westbound | 1 \$ | 36,750 | 36,750 | 90% | 6 | | \$ 36, | 750 | \$ - | \$ | | \$ | - | \$ | | OK |
| n6 | Electrical S Side Inc lighting about 700 m of conduit and cable feed + 10 poles (2 relocate) | LS | \$ 350,000 | | П | \$ | - | 90% | | | \$ | - : | \$ - | \$ | - | \$ | | \$ | | ОК |
| | Plug: add genl cont markup | 5% | \$ 367,500 | Eastbound none | | \$ | - | 90% | 6 | | \$ | - : | \$ - | \$ | - | \$ | - | \$ | - | OK |
| _ | ditto | | \$ 367,500 | Westbound | 1 \$ | 367,500 | 367,500 | 90% | 6 | | \$ 367, | 500 | \$ - | \$ | - | \$ | - | \$ | | OK |
| n7, 1 | Traffic Ops System, set of loop detectors | LS | \$ 150,000 | | | \$ | - | 90% | | Т | \$ | - : | \$ - | \$ | - | \$ | - | \$ | - | OK |
| | Plug: add genl cont markup | 5% | \$ 157,500 | Eastbound | 1 \$ | 157,500 | 157,500 | 90% | 6 | | \$ 157, | 500 | \$ - | \$ | - | \$ | - | \$ | - | OK |
| | ditto | | \$ 157,500 | Westbound | 1 \$ | 157,500 | 157,500 | 90% | 6 | | \$ 157, | 500 | \$ - | \$ | | \$ | | \$ | | OK |
| n8,9 | Electrical Relocate changeable message sign | LS | \$ 150,000 | | | 9 | - | 90% | | | \$ | - : | \$ - | \$ | - | \$ | - | \$ | - | OK |
| | Price plug: add genl cont markup | 5% | | Eastbound: Relocate changeable message sign | 1 \$ | 157,500 | | 90% | 6 | | | 500 | | \$ | - | \$ | - | \$ | - | OK |
| | ditto | | \$ 157,500 | Westbound: relocate one | 1 \$ | 157,500 | 157,500 | 90% | 6 | | \$ 157, | 500 | \$ - | \$ | - | \$ | - | \$ | | OK |

| اِ | Red = updates | | | | | Most L | ikely | | | Group # | Burma Rd, ROW, Util (Group 6) | Eastbound Roadway (Group 7) | Westbound Bridge Widen & Removal (Group 8) | Westbound Roadway (Group 9) | Project Wide (Group 10) | Check Group |
|-------------|---|-------|--------------|---|----------|--------------|-----------|-------------|-----|---------|-------------------------------------|-----------------------------------|---|-----------------------------------|----------------------------|----------------|
| # | Item | Unit | Unit \$ | | Qty | Unit | Extension | Probability | Gp> | | 6 | 7 | 8 | 9 | 10 | |
| 1 | Electrical at Bridge Structure Reconnect Power to exist bridge | LS | \$ 1,000,000 | | | \$ | - | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | Price plug: add genl cont markup | 5% | \$ 1,050,000 | Eastbound: none | | \$ | - | 90% | 6 | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| _ | ditto | | \$ 1,050,000 | Westbound | 1 \$ | 1,050,000 \$ | 1,050,000 | 90% | 6 | | \$ 1,050,000 | \$ - | \$ - | \$ - | \$ - | OK |
| ì | Electrical PG&E on exis frontage road Relocate 5 poles, about 200 m of overhead wires x 5 sets | LS | \$ 500,000 | | | \$ | - | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | Price plug: add genl cont markup | 5% | \$ 525,000 | Eastbound: Relocate electrical | 1 \$ | 525,000 \$ | 525,000 | 90% | 6 | | \$ 525,000 | \$ - | \$ - | \$ - | \$ - | OK |
| | ditto | | \$ 525,000 | Westbound none | | \$ | - | 90% | 6 | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | Add new big overhead road sign | ea | \$ 300,000 | | | \$ | - | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | Price plug: add genl cont | 5% | \$ 315,000 | Eastbound | | \$ | - | 90% | 6 | | \$ - | \$ - | \$ - | \$ - | \$ - | ОК |
| | ditto | | \$ 315,000 | Westbound | 1 \$ | 315,000 \$ | 315,000 | 90% | 6 | _ | \$ 315,000 | \$ - | \$ - | \$ - | \$ - | OK |
| ; ; ; | SWPPP Mgr \$150/hr 2.5 craft x80 = \$200/hr Equip \$50 Matl \$50 total \$450x40 hr = \$18,000/week | weeks | \$ 18,000 | | | \$ | | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| , | Add genl cont markup | 5% | \$ 18,900 | Eastbound: Oct 2010 to Mar 2011 | 26 \$ | 18,900 \$ | 491,400 | 90% | 10 | | \$ - | \$ - | \$ - | \$ - | \$ 491,400 | OK |
| | ditto | | \$ 18,900 | Westbound: Apr '11 to Jun '12 | 65 \$ | 18,900 \$ | 1,228,500 | 90% | 10 | | \$ - | \$ - | \$ - | \$ - | \$ 1,228,500 | OK |
| 1 | Protect Environmentally Sensitive Areas w/ ESA Fence + Silt Fence + Fiber roll (x3 to replace over life) YBITS price: \$10 + \$11 + (3 x \$3) = \$30 / m | LS | \$ 30 | | | \$ | - | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | add genl cont markup | 5% | \$ 32 | Burma Road Pessimist: could need 2 or more fences | 1,000 \$ | 37 \$ | 37,000 | 90% | 6 | | \$ 38,360 | \$ - | \$ - | \$ - | \$ - | OK |
| | ditto | | \$ 32 | | | \$ | - | 90% | 6 | _ | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| (| Relocate other utilities Gas line: put slab over top of PG&E line | LS | \$ 50,000 | | | 9 | - | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | Price plug: add genl cont | 5% | \$ 52,500 | Eastbound | 1 \$ | 52,500 \$ | 52,500 | 90% | 6 | | \$ 52,500 | \$ - | \$ - | \$ - | \$ - | OK |
| ď | ditto | | \$ 52,500 | Westboundnone | | \$ | - | 90% | 6 | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| į. | Relocate other utilities Elec line: put slab over top of 12 KV electrical line | LS | \$ 50,000 | | | \$ | - | 90% | | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |
| | Price plug: add genl cont | 5% | \$ 52,500 | Eastbound | 1 \$ | 52,500 \$ | 52,500 | 90% | 6 | | \$ 52,500 | \$ - | \$ - | \$ - | \$ - | ОК |
| | ditto | | \$ 52,500 | Westboundnone | | 9 | - | 90% | 6 | | \$ - | \$ - | \$ - | \$ - | \$ - | OK |

| | Red = updates | | | | | | Mos | t Like | ly | | | Group # | R | urma Rd, OW, Util Group 6) | Ro | stbound adway oup 7) | Bridg & R | stbound ge Widen emoval roup 8) | R | estbound oadway Group 9) | | ect Wide oup 10) | Check Group |
|---|--|------|------|---------|--|------|---------|--------|----------|-------------|-----|---------|----|----------------------------------|----|----------------------------|--------------|--|----|--------------------------------|----|---------------------|----------------|
| # | Item | Unit | | Unit \$ | | Qty | Unit | E | xtension | Probability | Gp> | | | 6 | | 7 | | 8 | | 9 | | 10 | |
| u | Relocate other utilities Bridge over EBMUD outfall line | LS | \$ | 250,000 | | | | \$ | - | 90% | | | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | Price plug: add genl cont markup | 5% | % \$ | 262,500 | Eastbound Cost is included in the structures portion of the estimate, no longer here. For cost of asphalt ramps, see item 79 | | | \$ | - | 90% | | 6 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | ditto | | \$ | 262,500 | Westboundnone | | | \$ | - | 90% | | 6 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | Relocate other utilities Sanitary Sewers, Storm drains, MH's | LS | \$ | 250,000 | | | | \$ | - | 90% | | | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | Price plug: add genl cont markup | 5% | % \$ | 262,500 | Eastbound | 1 \$ | 262,500 | \$ | 262,500 | 90% | | 6 | \$ | 262,500 | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | ditto | | \$ | 262,500 | Westboundnone | | | \$ | - | 90% | | 6 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | | | | | | | | | | | | | | | | | | | | | | | |
| w | Relocate other utilities Protect AT & T fiber optic line | LS | \$ | 250,000 | | | | \$ | - | 90% | | | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | Price plug: add genl cont | 5% | % \$ | 262,500 | Eastbound | 1 \$ | 262,500 | \$ | 262,500 | 90% | | 6 | \$ | 262,500 | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | markup | | Φ. | 000 500 | \\\4 | | | • | | 000/ | | 0 | • | | • | | • | | • | | Φ. | | OV |
| | ditto | | \$ | 262,500 | Westboundnone | | | \$ | - | 90% | | 6 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | OK |

| | Red = updates | | | | | Most | Likely | y | | | Group # | RO | rma Rd, bW, Util roup 6) | Roa | tbound adway oup 7) | Brid & I | estbound Ige Widen Removal Group 8) | R | estbound oadway Group 9) | | ject Wide roup 10) | Check Group |
|-----|---|--------------------|---------------|-------------------------------|--------|---------|-------------|------------------------|-------------|-----|---------|-------------|--------------------------------|--------------|---------------------------|-------------|--|-----------------|--------------------------------|------------|-----------------------|----------------|
| # | Item | Unit | Unit \$ | | Qty | Unit | Ex | tension | Probability | Gp> | | | 6 | | 7 | | 8 | | 9 | | 10 | |
| х | Relocate other utilities CCSF Water Line; Pump station inside E23 (new pump station) | LS | \$ 250,000 | | | | \$ | - | 90% | | | \$ | - | \$ | - | \$ | - | \$ | - | \$ | • | OK |
| | Price plug: add genl cont markup | 5% | \$ 262,500 | Eastbound | 1 \$ | 262,500 | \$ | 262,500 | 90% | 6 | | \$ | 262,500 | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| | ditto | | \$ 262,500 | Westboundnone | | | \$ | | 90% | 6 | | \$ | | \$ | - | \$ | - | \$ | - | \$ | - | OK |
| 195 | TRO unit price from YBITS | cal day | \$ 3,500 | | | | \$ | | 90% | | | \$ | - | \$ | | \$ | _ | \$ | _ | \$ | • | ОК |
| | Add escalation, cost for acceleration | 10% | \$ 3,850 | Eastbound: Oct 2010 to Mar 11 | 181 \$ | 2,500 | \$ | 452,500 | 90% | 10 | | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 455,668 | OK |
| | ditto | | \$ 3,850 | Westbound: Apr '11 to Jun '12 | 455 \$ | 3,850 | \$ 1 | 1,751,750 | 90% | 10 | | \$ | • | \$ | • | \$ | | \$ | | \$ 1 | 1,826,825 | OK |
| 195 | Mob | subtotal assume | 15% | | | | | 9,318,864 2,897,830 | | | | | ,414,573 962,186 | | 555,734 383,360 | | 209,636 31,445 | | 3,742,178 561,327 | | | OK |
| CC | Contingency: not inc here | subtotal assume | 0% | | | | \$ 22 \$ | 2,216,694 - | | | | \$ 7, \$ | ,376,752 | \$ 2,5 \$ | 939,087 | \$ \$ | 241,073 | \$ ⁴ | 4,303,496 - | \$ 7 \$ | 7,996,874 | |
| | | total | | | | | \$ 22 | 2,216,694 | | | | \$ 7, | ,376,752 | \$ 2, | 939,087 | \$ | 241,073 | \$ 4 | 4,303,496 | \$ 7 | 7,996,874 | |

The whole operation

Total Weighted Avg Probablility Estimate

\$22,857,283

Check OK

Cross checks:

PB checking estimate for electrical items as of 12/29/10 --

Burma Road estimate updated per 12/7/2010 plans



Memorandum

TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. - 3a

Progress Reports

Item- Draft Project Progress and Financial Update December 2011

Recommendation:

APPROVAL

Cost:

N/A

Schedule Impacts:

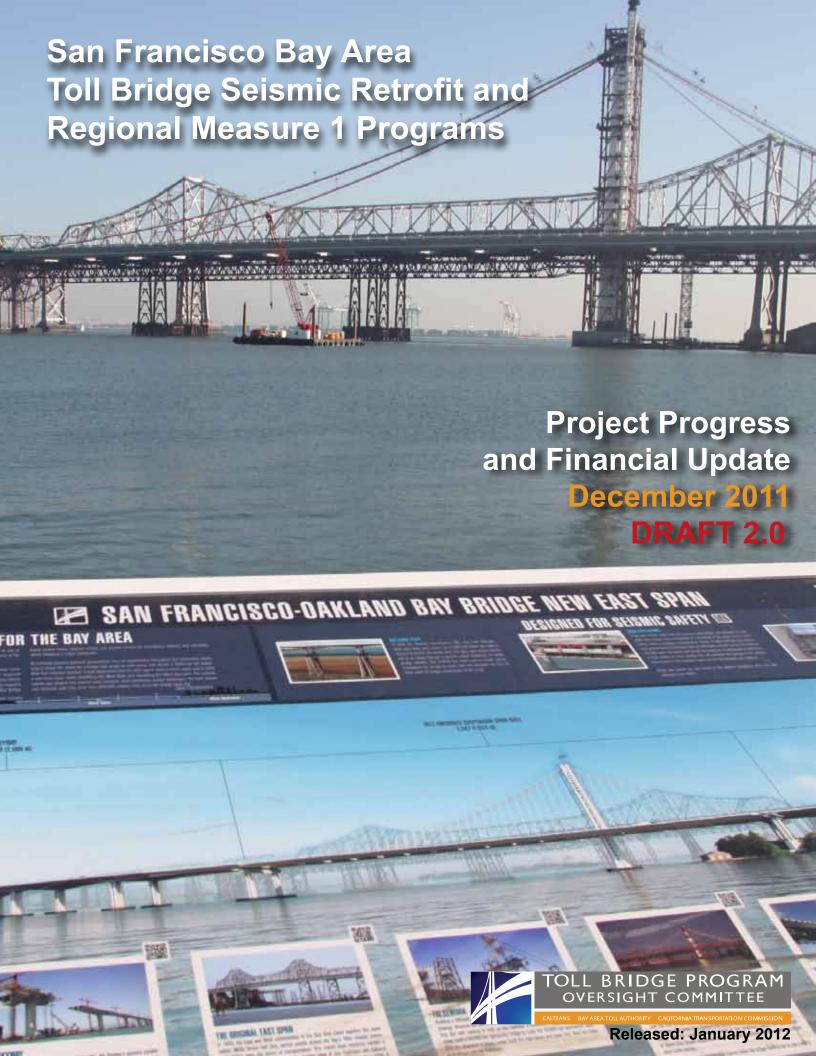
N/A

Discussion:

Included in this package is a draft Project Progress and Financial Update December 2011. By meeting time, the PMT would have approved the report under a delegated TBPOC authority. TBPOC confirmation of this approval is requested.

Attachment(s):

Project Progress and Financial Update December 2011 (see end of binder)







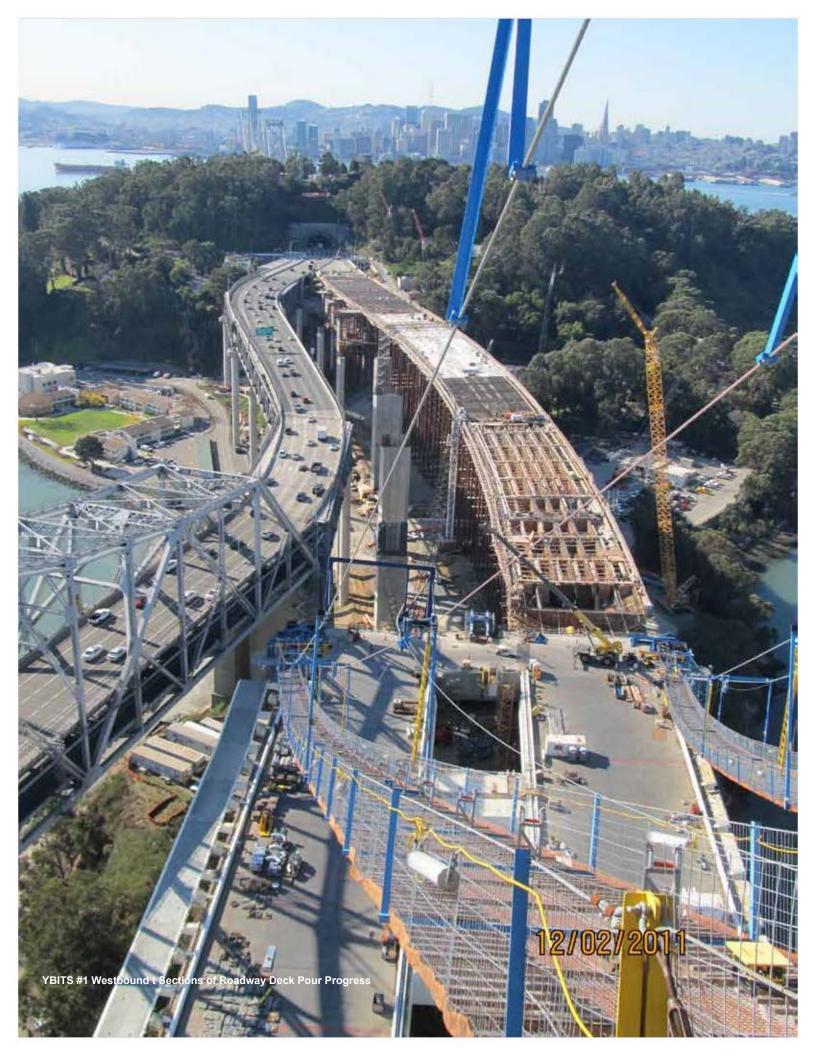
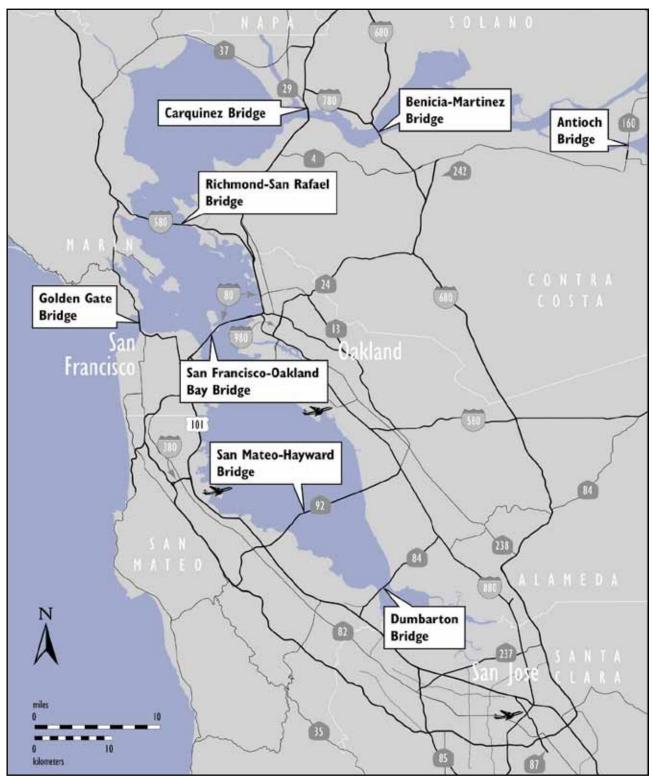


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Map of Bay Area Toll Bridges



^{*} The Golden Gate Bridge is owned and operated by the Golden Gate Bridge, Highway, and Transportation District.

Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program projects. The TBPOC consists of the Director of Caltrans, the Executive Director of the Bay Area Toll Authority (BATA) and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the Committee), and keeping the Legislature and others apprised of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current Toll Bridge Seismic Retrofit Program is as follows:

| Toll Bridge Seismic Retrofit Projects | Seismic Safety Status |
|---|-----------------------|
| Dumbarton Bridge Seismic Retrofit | Construction |
| Antioch Bridge Seismic Retrofit | Construction |
| San Francisco-Oakland Bay Bridge East Span Replacement | Construction |
| San Francisco-Oakland Bay Bridge West Approach Replacement | Complete |
| San Francisco-Oakland Bay Bridge West Span Seismic Retrofit | Complete |
| San Mateo-Hayward Bridge Seismic Retrofit | Complete |
| Richmond-San Rafael Bridge Seismic Retrofit | Complete |
| 1958 Carquinez Bridge Seismic Retrofit | Complete |
| 1962 Benicia-Martinez Bridge Seismic Retrofit | Complete |
| San Diego-Coronado Bridge Seismic Retrofit | Complete |
| Vincent Thomas Bridge Seismic Retrofit | Complete |

The New Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

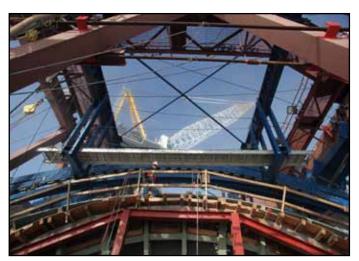
| Regional Measure 1 Projects | Open to Traffic Status |
|--|------------------------|
| Interstate 880/State Route 92 Interchange Reconstruction | Open |
| 1962 Benicia-Martinez Bridge Reconstruction | Open |
| New Benicia-Martinez Bridge | Open |
| Richmond-San Rafael Bridge Deck Overlay Rehabilitation | Open |
| Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation | Open |
| Westbound Carquinez Bridge Replacement | Open |
| San Mateo-Hayward Bridge Widening | Open |
| State Route 84 Bayfront Expressway Widening | Open |
| Richmond Parkway | Open |

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS

Peer Review of CIDH Pile Test



Foundation for the Self-Anchored Suspension Bridge Tower



Tramway and Hauling System above Tower Saddle and Favco Crane

Recent Issues

There have been recent questions raised in news articles questioning Caltrans' testing practices for foundations. Subsequently, following Caltrans' dismissal of a materials testing technician who had inspected foundation piles for the signature single tower of the San Francisco-Oakland Bay Bridge's new East Span, the state Toll Bridge Program Oversight Committee (TBPOC) has requested the Seismic Safety Peer Review Panel — comprised of engineering professors and other technical experts — to conduct an independent review of all records from quality assurance inspections of the piles.

Members of the Seismic Safety Peer Review Panel are Dr. Frieder Seible, who is dean of the Jacobs School of Engineering at the University of California at San Diego; Dr. I.M. Idriss, an independent consulting geotechnical engineer and emeritus professor of civil engineering at the University of California at Davis; Dr. John Fisher, professor emeritus of civil engineering at Lehigh University and director emeritus of the ATLSS Engineering Research Center; and structural engineer Joseph Nicoletti, who served as chair of the Engineering and Design Advisory Panel for the Bay Bridge East Span replacement project. Nicoletti also chairs the peer review panel. The TBPOC has consulted with the external Seismic Safety Peer Review Panel on numerous design and construction decisions over the years. The Seismic Safety Peer Review Panel is scheduled to meet in early December 2011.

Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management.

A comprehensive risk assessment is performed for each project in the program on a quarterly basis. Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. Nonetheless, assurances have been made that the public is informed of the risks that have been identified and the possible expense they could necessitate.

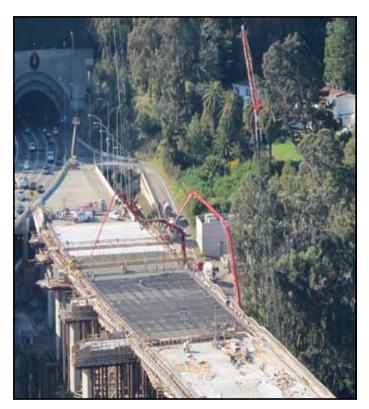
As of the end of the third quarter of 2011, the 50 percent probable draw on program contingency is 223 million. The potential draw ranges from \$110 million to \$310 million.

The \$308 million program contingency balance can be used to cover the costs of identified risks. In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project SAS Superstructure Contract

The prime contractor constructing the Self-Anchored Suspension (SAS) bridge from the completed Skyway to Yerba Buena Island is a joint venture of American Bridge/Fluor (ABF). Significant progress is being made both in the Bay Area and around the world.

The structural elements of the main tower are now complete with the saddle in place. Just shy of its 525-foot apex, the signature tower will be crowned with a



Yerba Buena Island Transition Structure #1 Deck Pour

decorative head after the cable is installed early next year. All 28 steel roadway boxes have been erected as of the end of October 2011 along with 19 crossbeams and five service platforms.

These boxes, fabricated in Shanghai, China, join other bridge components that have been arriving from around the country and the world. All bridge components undergo a rigorous quality review by the fabricator, ABF, and Caltrans to ensure that only bridge components that have been built in accordance to the specifications will be shipped. The TBPOC's goal is to open the bridge to traffic in both directions by December 2013.

With installation of all structural elements of the tower and roadway nearing completion, focus is now turning to the placement of the bridge's more than 2 1/2 - foot in diameter and nearly mile long main cable. The single cable is made up of 137 separate bundled strands which each contain 127 individual pencil thin wires (see photo on page 26). Each of the 137 bundled strands will be individually pulled by a tramway system from the northeastern end of the bridge, up and over the tower, and around the west end of the bridge before returning over the tower and to the southeastern end of the bridge.

To pull the strands up and around the bridge, a tramway system, similar to a ski lift, will be used to support, pull and place the main cable during installation. Installation of this system has begun and will be ongoing throughout rest of the year. Cable strand installation is scheduled to start in December 2011.

Yerba Buena Island Transition Structures #1 Contract

The YBITS#1 contract has been awarded to MCM Construction,Inc., the same contractor that completed the Oakland Touchdown (OTD) #1 contract. The MCM contract includes completing the remaining foundations and the bridge deck structure from the Yerba Buena Island Tunnel to the Self-Anchored Suspension (SAS) bridge.

Work is focused on the westbound transition structure's substructure and superstructure from the tunnel to the Self-Anchored Suspension bridge.

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Oakland Detour - Westbound Work in Progress



Existing San Francisco-Oakland Bay Bridge Cantilever Section to be Dismantled



Antioch Bridge - Barge-Mounted Crane Used to Install Cross-Bracing and Forms for Concrete Pedestals at Pier 21

Oakland Detour

The detour realigns the existing bridge approach to the south to allow for construction of the remaining portion of OTD #2 that was in conflict with the existing bridge. The eastbound detour was completed on May 30, 2011. The westbound detour is forecast to open in February 2012. The detour will require a closure of the bridge in the westbound direction. Staff will report with additional information when a date for this closure is determined.

Oakland Touchdown #2 Contract

The OTD #2 contract for construction was advertised in November 2011 and will be awarded in February 2012.

Existing SFOBB Dismantling

To expedite opening of a new eastbound on ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined.

Antioch Bridge Seismic Retrofit

The major retrofit strategy for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents and installing steel casings at all columns located at the Sherman Island approach slab bridge. Staff has reported that work is progressing well and that seismic safety is forecast to be completed ahead of schedule by early 2012. See project progress on page 36.

Dumbarton Bridge Seismic Retrofit

The Dumbarton bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast - prestressed concrete girders, and steel box girders supported on reinforced concrete piers. The retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings. See project progress on page 38.



Antioch Bridge - Jacks (in yellow) Installed within Jacking Pocket

TBSRP Programmatic Risks

This category includes risks that are not yet scoped within existing contracts and/or that spread across multiple contracts. The interdependencies between all of the contracts in the program result in the potential for one contract's delay to impact the entire program that are accounted for in the net programmatic risks.



Aerial View of the Recently Completed 92/880 Interchange Looking East



Recently Completed 92/880 Interchange

Regional Measure 1 Toll Bridge Program (RM1)

Interstate 880/State Route 92 Interchange Reconstruction Project

On October 7, 2011, officials gathered to celebrate the completion of the \$245 million project that was almost entirely funded from BATA toll bridge funds and completed within budget and without any construction delays. This milestone provides relief to 235,000 daily commuters who use the State Route 92/Interstate 880 interchange in Hayward, thanks to the major reconstruction of the facility as the final project of Regional Measure 1 Toll Bridge Program by Caltrans and the Bay Area Toll Authority. A Caltrans landscaping project will be performed in 2012.

Toll Bridge Seismic Retrofit Program Cost Summary
Contract AB 144/SB 66 TBPOC Current

Status

Budget (August 2005) Changes

TBPOC Approved Budget (November 2011)

Approved

Cost to Date (November 2011)

Current Cost Forecast (November 2011)

Cost Variance Cost Status

| | | | | 2011) | | | | |
|--|--------------|---------|---------|-----------|---------|---------|-----------|---|
| | | а | b | c = a + b | d | е | f = e - c | |
| FOBB East Span Seismic Replacement | | | | | | | | |
| Capital Outlay Construction | | | | | | | | |
| Skyway | Completed | 1,293.0 | (38.9) | 1,254.1 | 1,237.1 | 1,245.2 | (8.9) | |
| SAS Marine Foundations | Completed | 313.5 | (32.6) | 280.9 | 274.8 | 278.6 | (2.3) | |
| SAS Superstructure | Construction | 1,753.7 | 293.1 | 2,046.8 | 1,615.5 | 2,085.6 | 38.8 | |
| YBI Detour | Completed | 131.9 | 360.9 | 492.8 | 466.0 | 482.8 | (10.0) | |
| YBI Transition Structures (YBITS) | | 299.3 | (51.5) | 247.8 | 71.3 | 308.4 | 60.6 | |
| YBITS 1 | Construction | | | 185.5 | 71.3 | 226.8 | 41.3 | |
| YBITS 2 | Design | | | 59.0 | - | 78.3 | 19.3 | |
| YBITS Landscaping | Design | | | 3.3 | - | 3.3 | - | |
| Oakland Touchdown (OTD) | | 283.8 | 55.2 | 339.0 | 208.7 | 333.9 | (5.1) | |
| OTD 1 | Completed | | | 212.0 | 203.0 | 203.3 | (8.7) | |
| OTD 2 | Design | | | 62.0 | - | 58.1 | (3.9) | |
| Detour | Construction | | | 51.0 | - | 58.5 | 7.5 | • |
| OTD Electrical Systems | Design | | | 4.4 | - | 4.4 | - | |
| Submerged Electric Cable | Completed | | | 9.6 | 5.7 | 9.6 | - | |
| Existing Bridge Demolition | Design | 239.2 | (0.1) | 239.1 | - | 244.3 | 5.2 | |
| *Cantilever Section | Design | | | - | - | 61.4 | | |
| *504/288 Sections | Design | | | - | - | 182.9 | | |
| Stormwater Treatment Measures | Completed | 15.0 | 3.3 | 18.3 | 16.8 | 18.3 | - | |
| Other Completed Contracts | Completed | 90.4 | - | 90.4 | 89.9 | 90.4 | - | |
| Capital Outlay Support | | 959.3 | 218.0 | 1,177.3 | 1,014.8 | 1,275.1 | 97.8 | |
| Right-of-Way and Environmental Mitigation | | 72.4 | - | 72.4 | 51.7 | 80.4 | 8.0 | |
| Other Budgeted Capital | | 35.1 | (3.3) | 31.8 | 0.7 | 7.7 | (24.1) | |
| Total SFOBB East Span Replacement | | 5,486.6 | 804.1 | 6,290.7 | 5,047.3 | 6,450.7 | 160.0 | |
| ntioch Bridge Seismic Retrofit | | | | | | | | |
| Capital Outlay Construction and Mitigation | Construction | | 70.0 | 70.0 | 39.8 | 51.2 | (18.8) | |
| Capital Outlay Support | | | 31.0 | 31.0 | 21.3 | 34.7 | 3.7 | |
| Total Antioch Bridge Seismic Retrofit | | - | 101.0 | 101.0 | 61.1 | 85.9 | (15.1) | |
| umbarton Bridge Seismic Retrofit | | | | | | | | |
| Capital Outlay Construction and Mitigation | Construction | | 92.7 | 92.7 | 26.2 | 87.7 | (5.0) | |
| Capital Outlay Support | | | 56.0 | 56.0 | 30.4 | 57.7 | 1.7 | |
| Total Dumbarton Bridge Seismic Retrofit | | - | 148.7 | 148.7 | 56.6 | 145.4 | (3.3) | |
| other Program Projects | | 2,268.4 | (64.6) | 2,203.8 | 2,162.0 | 2,192.2 | (11.6) | |
| liscellaneous Program Costs | | 30.0 | - | 30.0 | 25.5 | 30.0 | - | |
| let Programmatic Risks | | - | - | - | - | 93.2 | 93.2 | |
| rogram Contingency | | 900.0 | (592.2) | 307.8 | - | 84.6 | (223.2) | |
| otal Toll Bridge Seismic Retrofit Program ² | | 8,685.0 | 397.0 | 9,082.0 | 7,352.5 | 9,082.0 | _ | |

Schedule

Remarks/Notes

Schedule

Toll Bridge Seismic Retrofit Program Schedule Summary AB144/SB

TBPOC

Current TBPOC

Current

| | 66 Project Completion Schedule Baseline (July 2005) | Approved Changes (Months) | Approved Completion Schedule (November 2011) | Completion Forecast (November 2011) | Variance (Months) | Status | |
|--------------------------------------|---|---------------------------------|--|---|----------------------|--------|-------------|
| | g | h | i=g+h | j | k=j-i | I | |
| SFOBB East Span Seismic Replacement | | | | | | | |
| Contract Completion | | | | | | | |
| Skyway | Apr 2007 | 8 | Dec 2007 | Dec 2007 | - | • | See Page 30 |
| SAS Marine Foundations | Jun 2008 | (5) | Jan 2008 | Jan 2008 | - | • | See Page 18 |
| SAS Superstructure | Mar 2012 | 29 | Aug 2014 | Aug 2014 | - | • | See Page 22 |
| YBI Detour | Jul 2007 | 41 | Dec 2010 | Oct 2010 | (2) | • | See Page 15 |
| YBI Transition Structures (YBITS) | Nov 2013 | 12 | Nov 2014 | Mar 2015 | 4 | | See Page 16 |
| YBITS 1 | | | Sep 2013 | Dec 2013 | 3 | • | |
| YBITS 2 | | | Nov 2014 | Mar 2015 | 4 | • | |
| YBITS Landscaping | | | TBD | TBD | - | • | |
| Oakland Touchdown | Nov 2013 | 12 | Nov 2014 | Nov 2014 | - | | See Page 31 |
| OTD 1 | | | Jun 2010 | Jun 2010 | - | • | |
| OTD 2 | | | Nov 2014 | Nov 2014 | - | • | |
| OTD Electrical Systems | | | TBD | TBD | - | • | |
| Submerged Electric Cable | | | Jan 2008 | Jan 2008 | - | • | |
| Existing Bridge Demolition | Sep 2014 | 12 | Sep 2015 | Dec 2015 | 3 | • | |
| Stormwater Treatment Measures | Mar 2008 | | Mar 2008 | Mar 2008 | - | • | |
| SFOBB East Span Bridge Opening and C | Other Milestones | | | | | | |
| Westbound Seismic Safety Open | Sep 2011 | 27 | Dec 2013 | Dec 2013 | - | • | |
| Eastbound Seismic Safety Open | Sep 2012 | 15 | Dec 2013 | Dec 2013 | - | | |
| Oakland Detour Eastbound Open | | | May 2011 | May 2011 | - | • | |
| Oakland Detour Westbound Open | | | Feb 2012 | Feb 2012 | - | • | |
| OTD Westbound Access | | | Aug 2009 | Aug 2009 | - | • | |
| YBI Detour Open | | | Sep 2009 | Sep 2009 | - | • | See Page 15 |
| Antioch Bridge Seismic Retrofit | | | | | | | |
| Contract Completion | | | Aug 2012 | May 2012 | (3) | • | See Page 34 |
| Dumbarton Bridge Seismic Retrofit | | | | | | | |
| Contract Completion | | | Sep 2013 | Sep 2013 | - | • | See Page 36 |
| | | | | | | | |

Within approved schedule and budget

Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated

Known project impacts with forthcoming changes to approved schedules and budgets(
 ⁽¹⁾ Figures may not sum up to totals due to rounding effects.

⁽²⁾ Construction administration of the OTD Detour is under the YBITS#1 contract.

Regional Measure 1 Program Cost Summary

Contract Status

BATA Baseline Budget (July 2005) BATA Approved Changes Current BATA Approved Budget (November 2011)

Cost to Date (November 2011) Current Cost Forecast (November 2011) Cost Variance Cost Status

| | | а | b | c = a + b | d | е | f = e - c | |
|---|---------------|---------|-------|-----------|---------|---------|-----------|---|
| Interstate 880/Route 92 Interchange R | econstruction | | | | | | | |
| Capital Outlay Construction | Construction | 94.8 | 68.4 | 163.2 | 147.5 | 163.2 | - | • |
| Capital Outlay Support | | 28.8 | 35.8 | 64.6 | 61.4 | 64.6 | - | • |
| Capital Outlay Right-of-Way | | 9.9 | 7.3 | 17.2 | 14.6 | 17.2 | - | • |
| Project Reserve | | 0.3 | (0.3) | - | - | - | - | |
| Total I-880/SR-92 Interchange Reconstruction | | 133.8 | 111.2 | 245.0 | 223.5 | 245.0 | - | |
| Other Completed Program Projects | | 1,978.8 | 182.6 | 2,161.4 | 2,088.9 | 2,161.4 | - | |
| Total Regional Measure 1 Toll Bridge Program ¹ | | 2,112.6 | 293.8 | 2,406.4 | 2,312.4 | 2,406.4 | - | |

Within approved schedule and budget

ldentified potential project risks that could significantly impact approved schedules and budgets if not mitigated

Known project impacts with forthcoming changes to approved schedules and budgets ¹ Figures may not sum up to totals due to rounding effects.

Regional Measure 1 Program Schedule Summary

| | BATA Baseline Completion Schedule (September 2005) | BATA Approved Changes (Months) | Current BATA Approved Completion Schedule (November 2011) | Current Completion Forecast (November 2011) | Schedule Variance (Months) | Schedule Status | Remarks/Notes |
|--|--|--------------------------------------|--|--|----------------------------------|--------------------|---------------|
| | g | h | i=g+h | j | k=j-i | ı | |
| Interstate 880/Route 92 Interchange Reconstruction | | | | | | | |
| Contract Completion | | | | | | | |
| Interchange Reconstruction | Dec 2010 | 9 | Sep 2011 | Sep 2011 | - | • | See Page 42 |



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, a critical question lingered: How could the Bay Bridge—a vital regional lifeline structure—be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge — the need to accommodate the more than 280,000 vehicles that cross the bridge each day.



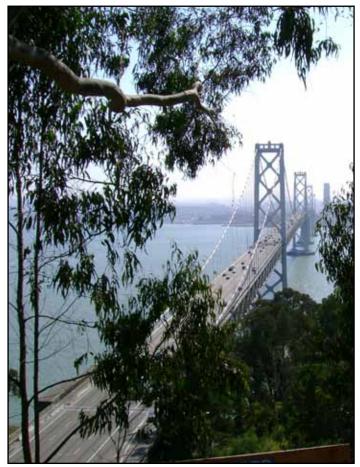
Seismic safety retrofit work on the West Approach in San Francisco, bounded on the west by 5th Street and on the east by the anchorage of the west span at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on- and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

West Span Seismic Retrofit Project Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



West Approach Overview



San Francisco-Oakland Bay Bridge West Span

East Span Seismic Replacement Project Project Status: In Construction

Rather than a seismic retrofit, the two-mile long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be parallel, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new bike path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span will be aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's sideby-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span has been completed and vehicles have been safely rerouted to it, the original East Span will be demolished.

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Architectural Rendering of the New East Span of the San Francisco-Oakland Bay Bridge

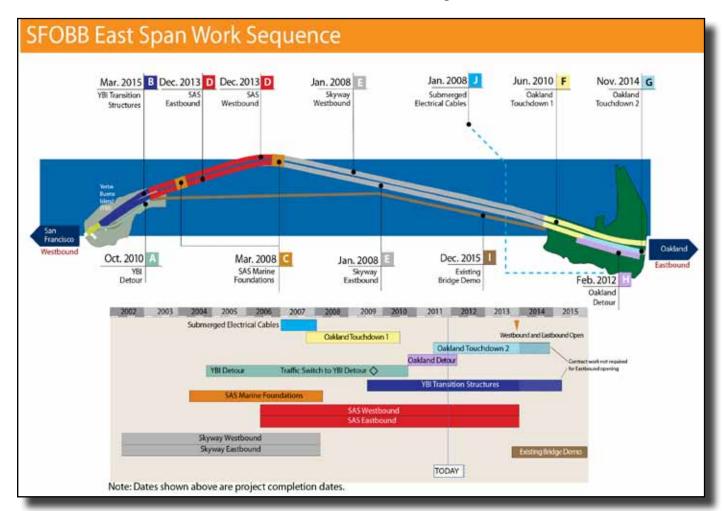
San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

The new East Span bridge can be split into four major components—the Skyway and the Self-Anchored Suspension bridge in the middle and the Yerba Buena Island Transition Structures and Oakland Touchdown approaches at either end. Each component is being constructed by one to three separate contracts that have been sequenced together to reduce schedule risk.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.



Overview of the San Francisco-Oakland Bay Bridge East Span Construction Progress





San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Bay Bridge's seismic retrofit projects, crews must build the Yerba Buena Island Transition Structures (YBITS) without disrupting traffic. To accomplish this task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour on Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

A YBID Contract

Contractor: C.C. Myers, Inc. Approved Capital Outlay Budget: \$492.8 M Status: Completed October 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Due to the readvertisement of the SAS Superstructure contract in 2005 because of a lack of funding at the time, the bridge opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC has approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over Labor Day weekend 2007, advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes have increased the budget and forecast for the contract to cover the revised project scope and reduce project risks.

Status: Completed.



YBID East Tie-In Rolled in on Labor Day 2009 Weekend



West Tie-In Phase #1 Rolled in on Labor Day Weekend 2007

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns have been advanced by the YBID contract, the remaining work will be completed under three separate YBITS contracts.

B YBITS #1 Contract

Contractor: MCM Construction, Inc.
Approved Capital Outlay Budget: \$185.5 M
Status: 30% Complete as of November 2011

The YBITS #1 contract will construct the mainline roadway structure from the SAS bridge to the YBI tunnel. On February 4, 2010, Caltrans awarded the YBITS #1 Contract to MCM Construction. Inc.

Status: Construction of the eastbound and westbound footings and columns is complete. Work continues on frames 1 and 2 westbound formwork, rebar installation and concrete placement for the stem walls and soffit. The eastbound falsework fabrication started in October 2011 and continues. Falsework is scheduled for installation in mid-December 2011. A portion of the frame 2 westbound roadway deck was placed in mid-November 2011. The balance of the frame 2 soffit and stem walls will be poured in December 2011 along with frame 1 westbound roadway deck.

YBITS #2 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$59.0 M

Status: In Design

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island. To expedite opening of a new eastbound on-ramp and the pedestrian/bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing bridge will be incorporated into the YBITS #2 contract, while the remaining portions of the existing bridge will be removed by separate contract or contracts yet to be determined. YBITS #2 cantilever truss will be advertised in March 2012

YBITS Landscaping Contract

Contractor: TBD

Approved Capital Outlay Budget \$3.3M

Status: In Design

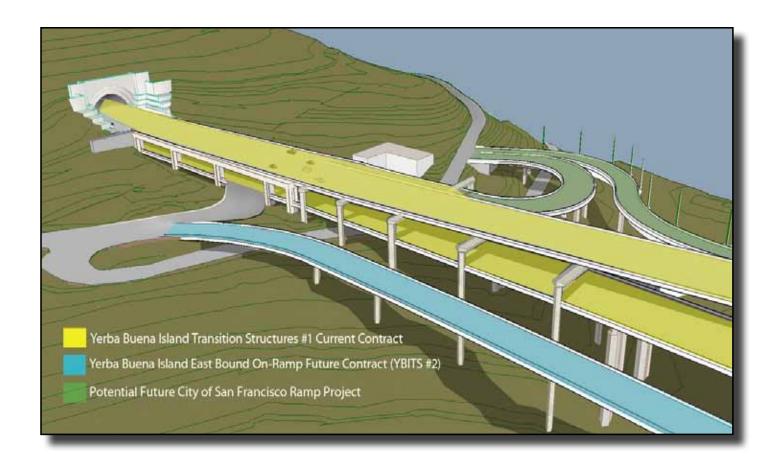
Upon completion of the YBITS work, a follow-on landscaping contract will be executed to replant and landscape the area.



YBITS #1 Westbound Sections of Roadway Deck Progress



Overview of the Yerba Buena Island Westbound Transition Structure on right and Yerba Buena Island Temporary Detour on left



Yerba Buena Island Transition SAS Skyway Oakland Touchdown 17

San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts— construction of the land-based foundations and columns at pier W2; construction of the marine-based foundations and columns at piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway, and cabling. Construction of the foundations at pier W2 and at piers T1 and E2 was completed in 2004 and 2007, respectively.



Aerial View of the Self-Anchored Suspension Bridge with Shear-Leg Crane Barge Hoisting Final Roadway Box into Place

SAS Land Foundation Contract

Contractor: West Bay Builders, Inc. Approved Capital Outlay Budget: \$26.4 M Status: Completed October 2004

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.

C

SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture Approved Capital Outlay Budget: \$280.9 M Status: Completed January 2008

Construction of the piers at E2 and T1 (see rendering on facing page) required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud.

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.

D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$2.05 B Status: 79% Complete as of November 2011

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in rock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there will appear to be two main cables on the SAS, there will actually only be a single continuous cable. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end.

The single-steel tower is made up of four separate legs connected by shear link beams which function much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

The next several pages highlight the construction sequence of the SAS and are followed by detailed updates on specific construction activities.

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Architectural Rendering of New Self-Anchored Suspension Span and Skyway

TOLL BRIDGE SEISMIC RETROFIT PROGRAM Self-Anchored Suspension (SAS) Construction Sequence

STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

All temporary support foundations and structures completed in September 2010 between the Skyway and Yerba Buena Island to support the westbound and eastbound roadway box erections.

STEP 2 - INSTALL ROADWAYS

All 28 roadway boxes have been erected as of the end of October 2011.

Status: Counterweights concrete placement started in early December and will be completed in mid-December 2011. Final bolting of service platforms and crossbeams will be completed in mid-December 2011. Roadway boxes 12, 13 and 14 eastbound and westbound seam welding is in the final phase and projected to be completed in January 2012 along with roadway boxes 13 and 14 inboard and outboard barrier installation (with exception of roadway box 11, which will be complete after the cable installation in June 2012). Bike path handrail installation started in mid-December and will be completed in January 2012.

STEP 3 - INSTALL TOWER

All tower legs, tower grillage and tower saddle were erected using the self-rising crane as of mid May 2011. The tower head will be installed after cable erection has been completed in 2012.

Status: Tower bolting is in progress and will be complete in January 2012. Welding of base shear plate is in progress and will be complete in January 2012.







STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable pull started in late December from east end of the westbound roadway deck over the tower saddle, wrapped around pier W2 returning back to the tower saddle to the east end of eastbound road deck where it will be anchored. Suspender cables will be added after all 137 cable bundles have pulled to the lift the roadway deck off the temporary structure.

Status: The Parallel Wire Strand (PWS) cable pull will begin in later December in will be completed in mid 2012.

STEP 5 - WESTBOUND AND EASTBOUND SEISMIC SAFETY OPENING

The new bridge will now open simultaneously in both the westbound and eastbound directions.

Status: All four legs of the tower including the tower saddle and the grillage have been erected as of May 2011. Tower bolting and welding of diaphragms is ongoing and projected to be completed in January 2012. The tower head will be installed after cable installation and cable compaction has been completed in the later part of 2012.







Aerial View of the Self-Anchored Suspension Bridge with Shear-Leg Barge Crane Hoisting the Final Roadway Box to Complete the Self-Anchored Suspension Bridge Deck

Yerba Buena Island Transition SAS Skyway Oakland Touchdown 21

Self-Anchored Suspension (SAS) Superstructure Fabrication Activities

Roadway and Tower Segments

Like giant three-dimensional jigsaw puzzles, the roadway and tower lifts of the SAS bridge are hollow steel shells that are internally strengthened and stiffened by a highly engineered network of welded steel ribs and diaphragms. The use of steel in this manner allows for a strong and yet relatively light and flexible structure to withstand the massive loads placed on the bridge during seismic events.

All components undergo a rigorous quality review by ZPMC, ABF, and Caltrans to ensure that only bridge components that have been built according to contract specifications will be shipped.

Roadway Box Fabrication Status: Roadway boxes 1 through 14 east and west have all been fabricated and delivered to the job site.

Tower Fabrication Status: All tower components have been fabricated and were delivered to the job site in June 2012.

Cables and Suspenders

One continuous main cable will be used to support the roadway deck of the SAS bridge. The main cable will be anchored within the westbound and eastbound roadway boxes at the east end of the SAS near pier E2, then extend west over the northeast saddle towards the tower saddle at T1. It will then loop around pier W2 westbound deviation saddle, extend through the jacking beam saddle and extend around the eastbound deviation saddle at W2 over the tower saddle at T1 again to the south east saddle and finally anchor within the eastbound roadway box near pier E2. The main cable is made up of 137 bundles of wire strands and a number of smaller suspender ropes will connect the roadway decks to the main cable.

Status: All main cable strands have been fabricated and delivered to the job site and stored at Pier 7 in Oakland. The cable bands have been fabricated and shipped to the job site and are expected to arrive in November 2011. The 75mm suspender ropes are complete and at the jobsite. The last of the 90mm suspender ropes are complete and will ship in December 2011.



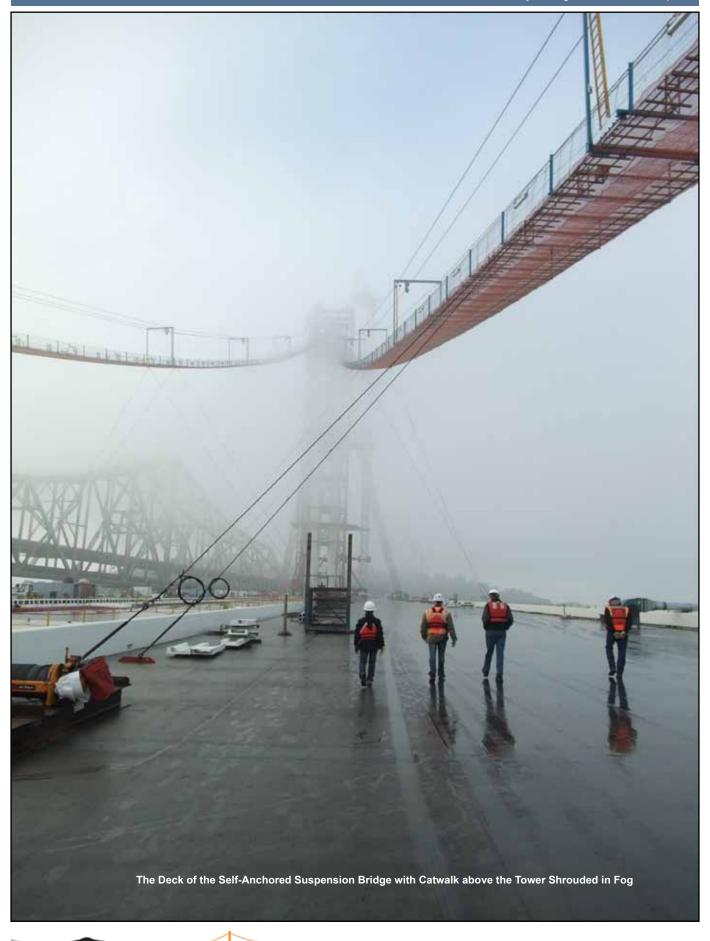
Off Loading the Final Four Roadway Boxes at Pier 7 in Oakland

Saddles, Bearings, Hinges, and Other Bridge Components

The mounts on which the main cable and suspender ropes will sit are solid steel castings. Castings for the main cable saddles were made by Japan Steel Works, while the cable bands and brackets are being made by Goodwin Steel in the United Kingdom.

The bridge bearings and hinges that support, connect, and transfer loads from the Self-Anchored Suspension (SAS) Span to the adjoining sections of the new east span are being fabricated in a number of locations. Work on the bearings is being performed in Pennsylvania, USA and Hochang, South Korea, while hinge pipe beams are being fabricated in Oregon, USA.

Status: The Hinge K pipe beams have been fabricated and installed. Hinge A seismic expansion joints are in fabrication and are currently scheduled for completion in February 2012. The SAS traveler rails and the Skyway bike path railings and crushable zone have been fabricated and shipped in late November 2011. The anchor rods are being installed in roadway boxes 13 east and west.



Yerba Buena Island Transition SAS Skyway Oakland Touchdown 23

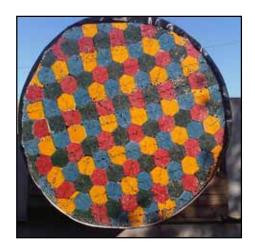
TOLL BRIDGE SEISMIC RETROFIT PROGRAM Self-Anchored Suspension (SAS) Superstructure Cable Installation Activities

With installation of all structural elements of the tower and roadway nearing completion, focus is now turning to the placement of the bridge's more than 2 1/2 - foot in diameter and nearly mile long main cable. The single cable is made up of 137 separate bundled strands which contain 127 individual pencil thin wires. Each of the 137 bundled strands will be individually pulled by a tramway system from the northeastern end of the bridge, up and over the tower, and around the west end of the bridge before returning over the tower and to the southeastern end of the bridge.

Status: Workers installed the orange-colored 12-foot-wide catwalks from the roadway to the top of the tower in August 2011. The catwalks provide workers with safe access during the installation of the hauling system, tramway system and main cable strands.

Because the bridge is asymmetric with a longer span to the east than to the west, the tower will be pulled back 20 inches to the west so that the tower will return to a plumb position when the weight of the heavier east side of the bridge is transferred to the main cable. The tower pull back was completed in September 2011.

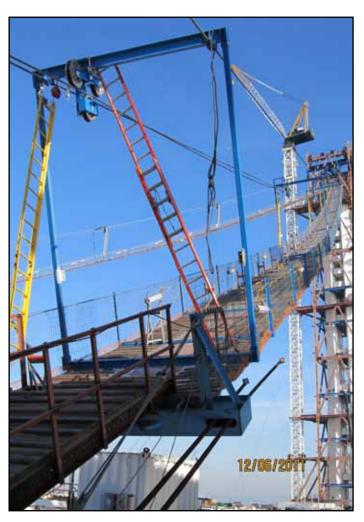
To pull the strands up and around the bridge, a tramway system, similar to a ski lift, will be used to support, pull and place the main cable during installation. Installation of this system has begun and will be complete prior to the cable strand installation, which is scheduled to start in late December 2011.



Sample of Cable Band Compaction Testing Performed at Pier 7 in Oakland



Parallel Wire Strand Anchor Rods



The Self-Anchored Suspension Bridge Temporary Cable Strand Placement Tramway System on the Back Span Catwalk



Final Adjustments to the Cable Strand Placement Tramway System

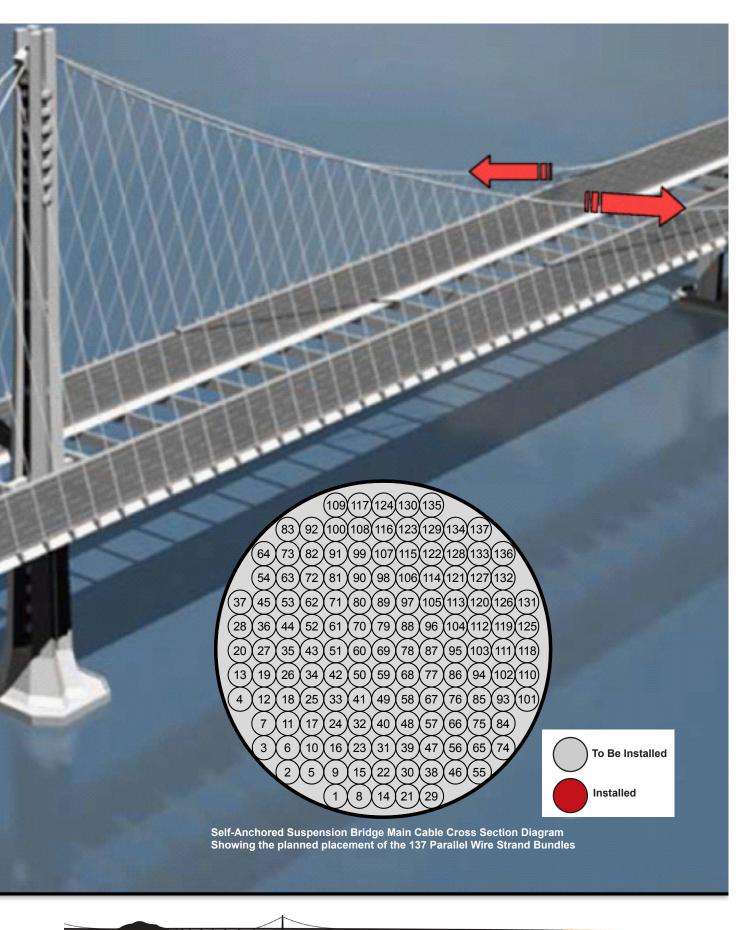


North-West Deviation Saddle Area



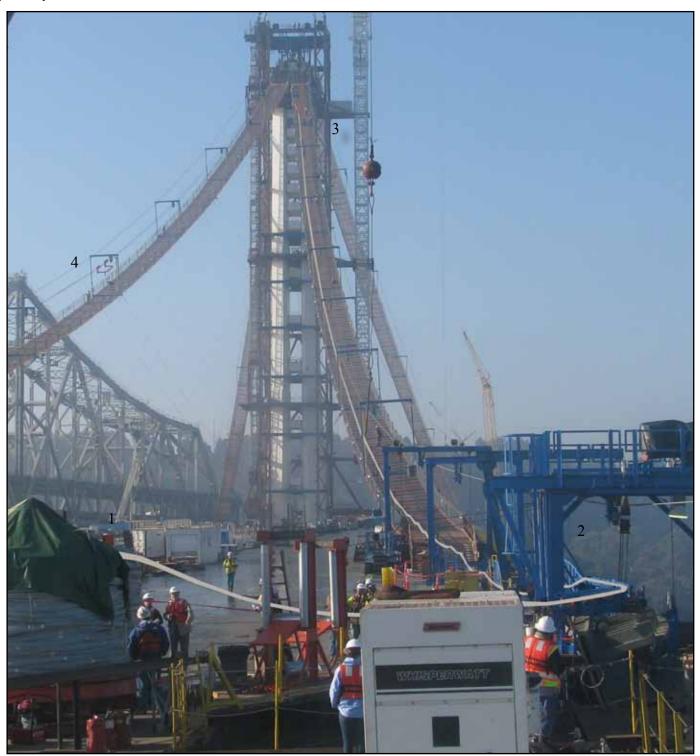
West Approach

27



Yerba Buena Island Transition SAS Skyway Oakland Touchdown

TOLL BRIDGE SEISMIC RETROFIT PROGRAM Self-Anchored Suspension (SAS) Superstructure Cable Installation Activities (cont.)



First Cable Strand Being Pulled

Cable Hauling System

The 137 strands will be hauled up and around the self-anchored suspension span by a custom tram system similar to a ski lift. Each strand will be brought to the bridge on spools (1) that are unwound and attached to a tram lift pulling arm (2) to then be pulled around the bridge. The strand is pulled by the pulling arm starting at the northeast corner of the bridge up (3) and down the tower and around the west end of the bridge before returning over the tower to the southeast end corner of the bridge (4).



(1) Strand Spool Feeding Strand to Cable Pulling Arm



(2) Connecting the Cable Strand Pulling Arm to the Strand Lead Socket



(3) Pulling Arm and Strand Moving up toward the Tower



(4) Strand Pull Complete - Pulling Arm Arriving at Southeast Anchorage Area

San Francisco-Oakland Bay Bridge East Span Replacement Project **Skyway**

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

E Skyway Contract

Contractor: Kiewit/FCI/Manson, Joint Venture Approved Capital Outlay Budget: \$1.25 B Status: Completed March 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.



Skyway on the left and Existing Bridge on the Right Looking East toward Oakland

San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the new side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The Oakland Touchdown (OTD) approach structures to the Skyway will be constructed in three phases. The first phase, constructed on the OTD #1 contract, built the new westbound approach structure. Due to physical constraints with the existing bridge, OTD #1 was only able to construct a portion of the eastbound approach. To facilitate opening the bridge in both directions at the same time, the current phase of work, performed by the Oakland Detour contractor, is widening the upper deck of the Oakland end of the existing bridge to allow for a traffic shift to the north that removes the physical constraint to completing the eastbound structure. The third phase, to be constructed by a future OTD #2 contract, will complete the eastbound lanes and provide the traffic switch to the new structure in both directions. This will allow the bridge to open simultaneously in both directions.

Gakland Touchdown #1 Contract

Contractor: MCM Construction, Inc. Approved Capital Outlay Budget: \$212.0 M Status: Completed June 2010

The OTD #1 contract constructed the entire 1,000-footlong westbound approach from the toll plaza to the Skyway. When open to traffic, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract will construct a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

Status: MCM Construction, Inc. completed OTD #1 westbound and eastbound phase 1 on June 8, 2010.

G Oakland Touchdown #2 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$62.0 M

Status: In Design

The OTD #2 contract will complete the eastbound approach structure from the end of the Skyway to Oakland. This work is critical to the eastbound opening of the new bridge by December 2013.

Status: The TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. OTD #2 was advertised in November and will be awarded in February 2012. Construction will begin in April 2012.



Oakland Touchdown #1 Pier Wall

H Oakland Detour

Contractor: MCM Construction, Inc. Approved Capital Outlay Budget: \$51.0 M Status: 85% as of November 2011

To ensure a simultaneous eastbound and westbound opening of the bridge by December 2013, the TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. The detour realigns the existing bridge approach to the south to allow for construction of the remaining portion of OTD that was in conflict with the existing bridge.

Status: The westbound detour construction foundations and pier walls are in progress and the westbound detour is forecast to be completed in early February 2012 pending weather or construction delays.



Aerial View of the Newly Opened Eastbound Oakland Detour with the EBMUD Outfall Crossing Structure on the right, the Relocated Clear Channel Sign and the Westbound Oakland Detour under Construction



Oakland Detour Lead Abatement Completed



Straddle Foundations Poured and Formwork Stripped



Westbound Foundation Wall Formwork

Existing East Span Bridge Demolition

Contractor: TBD

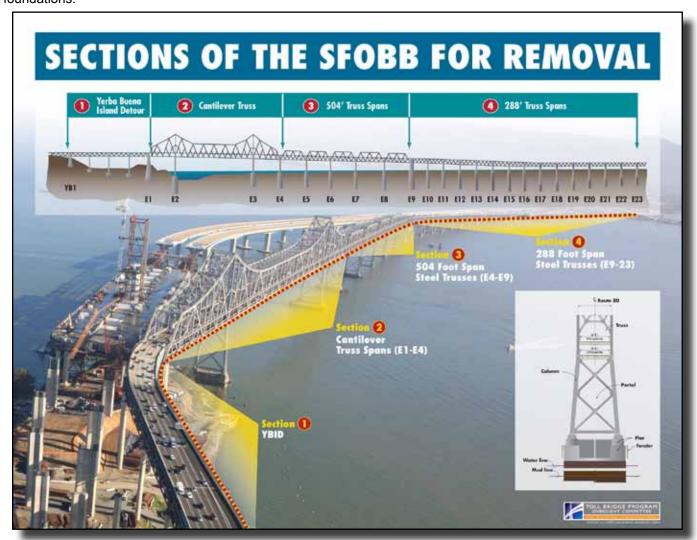
Approved Capital Outlay Budget: \$239.1 M

Status: In Design

Design work on the demolition of the existing bridge has started. The current plan is to complete the environmental clearance by December 2011 and obtain all permits by February 2012, advertise in March 2012 and awarded in August 2012. To expedite opening of a new eastbound on-ramp and the pedestrian/ bicycle pathway from Yerba Buena Island, the TBPOC has decided to split the bridge dismantling project into at least two contracts. The dismantling of the superstructure of the main cantilever section of the existing east span of the bridge will be incorporated into the YBITS #2 contract, while the remaining portions will be removed by separate contract or contracts yet to be determined for the superstructure and marine foundations.



Dismantling Scope Included in the Future YBITS#2 Contract -YBI Detour at left, E-1 Center, Cantilever at right



33 Oakland Touchdown Yerba Buena Island Transition

San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts, and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

J Electrical Cable Relocation

Contractor: Manson Construction Approved Capital Outlay Budget: \$9.6 M Status: Completed January 2008

A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority.

Yerba Buena Island Substation

Contractor: West Bay Builders Approved Capital Outlay Budget: \$11.6 M Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.



Archeological Investigations



New YBI Electrical Substation

Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.
Approved Capital Outlay Budget: \$18.3 M
Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.

East Span Interim Seismic Retrofit

Contractors: 1) California Engineering
2) Balfour Beatty

Approved Capital Outlay Budget: \$30.8 M

Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.

Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture Approved Capital Outlay Budget: \$9.3 M Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use them in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.



Stormwater Retention Basin



Existing East Span of the San Francisco-Oakland Bay Bridge



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Battered Pile Installation Demonstration

Yerba Buena Island Transition SAS Skyway Oakland Touchdown

TOLL BRIDGE SEISMIC RETROFIT PROGRAMAntioch Bridge Seismic Retrofit Project

Contractor: California Engineering Contractors, Inc. Approved Capital Outlay Budget: \$70.0 M Status: 90% Complete as of November 2011

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8-mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The major retrofit measure for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents, and installing steel casings at all columns located at the Sherman Island approach slab bridge.

Status: Work is progressing well and that seismic safety is forecast to be completed ahead of schedule by the early 2012.

Seismic isolation bearings will allow the superstructure of the bridge to move independently from the pier and column substructure during an earthquake. All seismic isolation bearings have been fabricated, tested, and made ready for delivery. Sixty six bearings (83% complete) have been installed at 41 piers.

At piers 12 through 31, center steel cross-bracing is being added between the pier columns to strengthen the pier. The work requires off-site fabrication of the steel cross-bracing and on-site preparation of the existing columns to ensure proper bond with the new bracing. Installation of all cross-bracing has been completed at 20 piers. The last major activity of completing the pier retrofit is painting the cross frames that are now 100% complete.

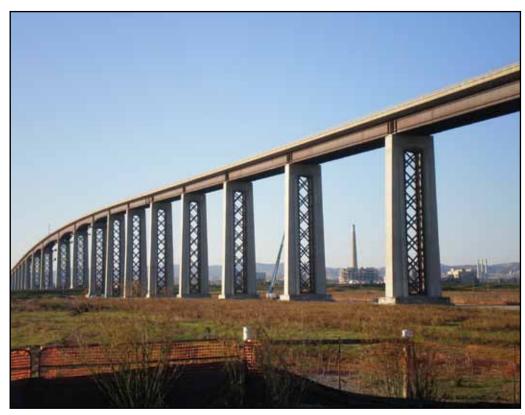
Columns supporting the approach slab bridge located on Sherman Island are being strengthened with steel column casing jackets. Eighty-two of the 116 column casing jackets have been installed and welded (71% complete). The approach slab bridge expansion joints are being retrofitted with seat extenders. Eight of the 12 seat extenders have been installed (67% complete). In addition to the retrofit work, the bridge is being instrumented to provide ground and structure motion information during future seismic event. Seismic monitoring equipment is being installed at 250, 160, 80, 50, 20 and 4 feet below the ground surface.



Barge-Mounted Cranes Used to Erect Cross-Bracing



Completed Installation of Isolation Bearing between Bent Cap and Plate Girder



Overall View of the 20 Piers Receiving Cross-Bracing



Seat Extenders Installed at Sherman Island Slab Bridge Expansion Joints

Dumbarton Bridge Seismic Retrofit Project

Contractor: Shimmick Construction Company, Inc. Approved Capital Outlay Budget: \$92.7 M Status: 35% Complete as of November 2011

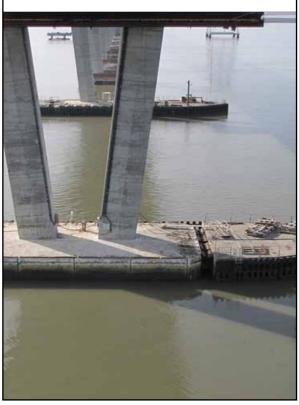
The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge has six lanes (three in each direction) and an eight-foot bicycle/pedestrian pathway. The bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast-prestressed concrete delta girders and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

Status: The main bridge structure between piers 16-31 will be raised approximately 5 inches so isolation bearings can be installed to separate the superstructure from the substructure during seismic events. In preparation, the bridge piers are being widened with reinforced concrete to accommodate the new bearings. Work continues with reinforcing steel and concrete placement at these main bridge piers.

Along the reinforced concrete slab approaches, the bent caps are being extended and tied to new 48" diameter steel piles that have been installed to strengthen the bridge. Bent cap extensions along the east and west trestle approach are now complete.

The concrete coring operation to widen the pier caps is complete at all of the 14 locations. Concrete has been placed at 10 of 16 piers. The installation of jacking frames is complete at piers 17,through 20. Welding is ongoing at piers 21 and 22.

Work at the pumping plant is substantially complete. Fender rehabilitation work is ongoing at piers 23 and 24. Pier footing overlay concrete has been placed at piers 17 and 18. Drill and bond dowel and rebar placement is complete through pier 20.



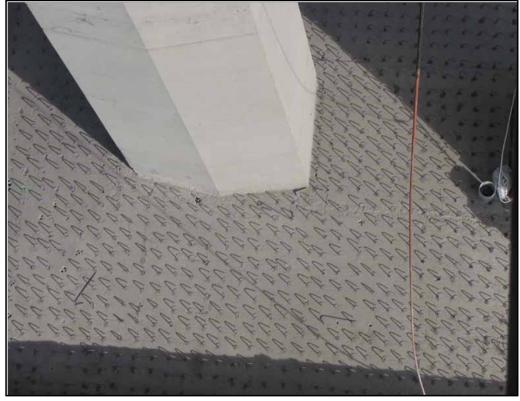
Pier 24 Fender Rehabilitation Work Progress



Pier Cap Drill and bond Dowels at Pier 18



Pier 24 Rerouting the Electrical Conduit



Drill and Bond Dowels at Pier 22 for Footing Overlay

TOLL BRIDGE SEISMIC RETROFIT PROGRAM Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of all of the bridges have been completed as planned.

San Mateo-Hayward Bridge Seismic Retrofit Project Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.

1958 Carquinez Bridge Seismic Retrofit Project Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thrutruss structure.

1962 Benicia-Martinez Bridge Seismic Retrofit Project Project Status: Completed 2003

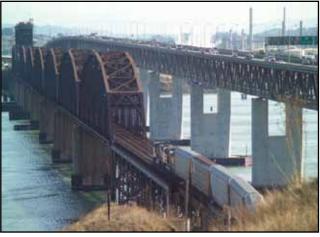
The southbound 1962 Benicia-Martinez Bridge was retrofitted to "Lifeline" status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after a seismic event and to reopen quickly to emergency response traffic.



High-Rise Section of San Mateo-Hayward Bridge



1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)



1962 Benicia-Martinez Bridge (right)

Richmond-San Rafael Bridge Seismic Retrofit Project Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a "No Collapse" classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.



Richmond-San Rafael Bridge

Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project Project Status: Completed 2000

The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.



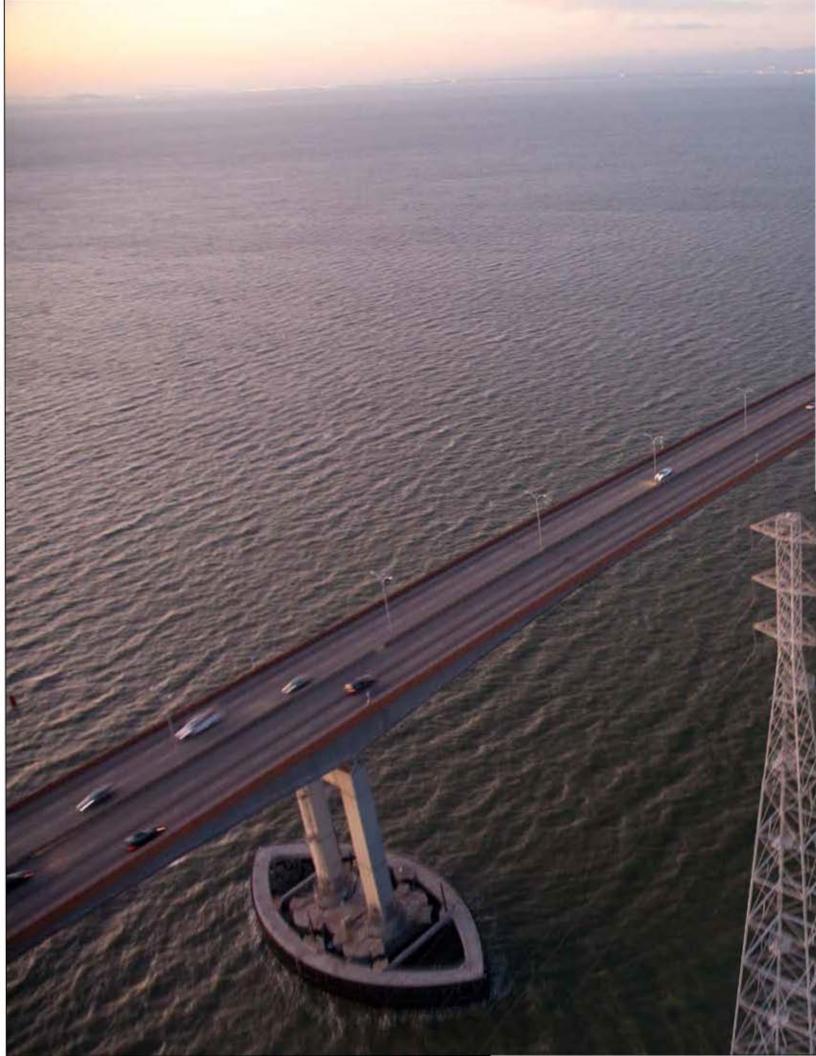
Los Angeles-Vincent Thomas Bridge

San Diego-Coronado Bridge Seismic Retrofit Project Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1-mile long bridge was seismically retrofitted as part of the TBSRP in 2002.



San Diego-Coronado Bridge



REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

REGIONAL MEASURE 1 PROGRAM

Interstate 880/State Route 92 Interchange Reconstruction Project Project Status: Completed

The Interstate 880/State Route 92 Interchange Reconstruction Project is the final project under the Regional Measure 1 Toll Bridge Program. Project completion fulfills a promise made to Bay Area voters in 1988 to deliver a slate of projects that help expand bridge capacity and improve safety on the bridges.

Interstate 880/State Route 92 Interchange Reconstruction Contract

Contractor: Flatiron/Granite

Approved Capital Outlay Budget: \$163.2 M Status: 100% Complete as of November 2011

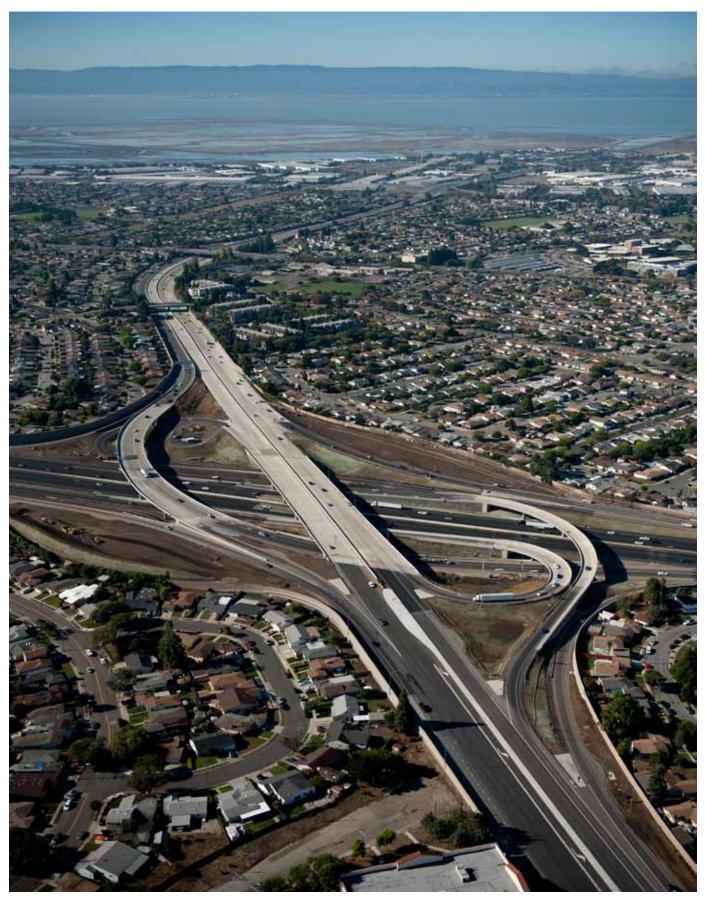
This corridor was consistently one of the Bay Area's most congested during the evening commute. This was due in part to the lane merging and weaving that was required by the then-existing cloverleaf interchange. The new interchange features direct freeway-to-freeway connector ramps that now increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off of the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880 (see progress photos in appendices). A Caltrans landscaping project will be performed in 2012.



Aerial View of Construction Progress



Aerial View of Construction Progress



Aerial View of 92/880 Interchange Construction Progress

REGIONAL MEASURE 1 PROGRAM Other Completed Projects

San Mateo-Hayward Bridge-Widening Project Project Status: Completed 2003

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.



Widening of the San Mateo-Hayward Bridge Trestle on Left

Richmond-San Rafael Bridge Rehabilitation Projects Project Status: Completed 2006

Two major rehabilitation projects for the Richmond-San Rafael Bridge were funded and completed:

(1) replacement of the western concrete approach trestle and ship-collision protection fender system; and (2) rehabilitation of deck joints and resurfacing of the bridge deck.

In 2005, along with the seismic retrofit of the bridge, the trestle and fender replacement work was completed as part of the same project. Under a separate contract in 2006, the bridge was resurfaced with a polyester concrete overlay along with the repair of numerous deck joints.



New Richmond-San Rafael Bridge West Approach Trestle under Construction

Richmond Parkway Construction Project Project Status: Completed 2001

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.

New Alfred Zampa Memorial (Carquinez) Bridge Project Project Status: Completed 2003



New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane, shoulders and a bicycle/pedestrian pathway.

Benicia-Martinez Bridge Project Project Status: Completed 2009

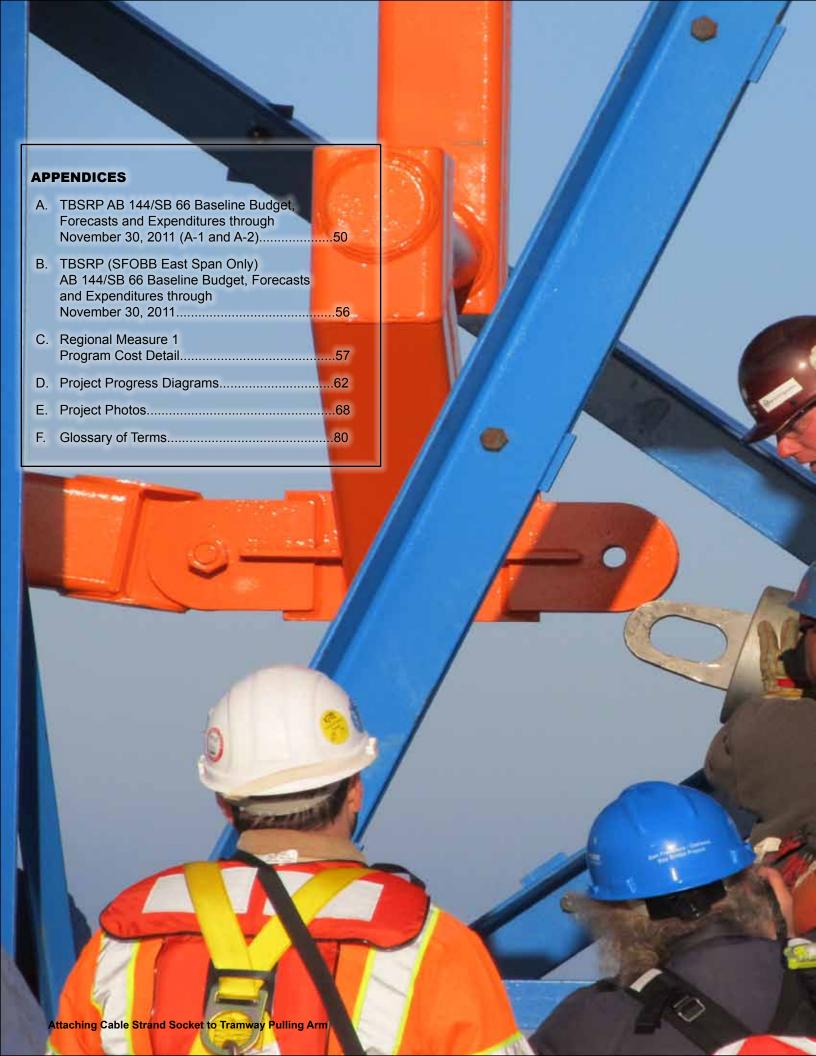


Benicia-Martinez Bridge Bicycle/Pedestrian Pathway Opened to the Public in August 2009

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before)—with shoulders on both sides—plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008. Reconstruction of the west side of the bridge and its approaches and construction of the bicycle/pedestrian pathway were completed in August 2009.

Bayfront Expressway (State Route 84) Widening Project Project Status: Completed 2004

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/ Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle/pedestrian access in the area.





Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions)

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|--|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a | С | d | e = c + d | f | g | h = g - e |
| CEORD Foot Curry Doublessmont Duringt | | | | | | |
| SFOBB East Span Replacement Project | 959.3 | 210.0 | 1 177 2 | 1 014 0 | 1 075 1 | 97.8 |
| Capital Outlay Support | 4,492.2 | 218.0 | 1,177.3 | 1,014.8 | 1,275.1 | 97.6 86.3 |
| Capital Outlay Construction | | 589.4 | 5,081.6 | 4,031.8 | 5,167.9 | |
| Other Budgeted Capital | 35.1 | (3.3) | 31.8 | 0.7 | 7.7 | (24.1) |
| Total | 5,486.6 | 804.1 | 6,290.7 | 5,047.3 | 6,450.7 | 160.0 |
| SFOBB West Approach Replacement | 400.0 | (0.0) | 440.0 | 440.5 | 440.0 | 4.0 |
| Capital Outlay Support | 120.0 | (2.0) | 118.0 | 118.5 | 119.0 | 1.0 |
| Capital Outlay Construction | 309.0 | 41.7 | 350.7 | 330.5 | 338.1 | (12.6) |
| Total | 429.0 | 39.7 | 468.7 | 449.0 | 457.1 | (11.6) |
| SFOBB West Span Retrofit | | | | | | - |
| Capital Outlay Support | 75.0 | (0.2) | 74.8 | 74.9 | 74.8 | - |
| Capital Outlay Construction | 232.9 | (5.5) | 227.4 | 227.4 | 227.4 | - |
| Total | 307.9 | (5.7) | 302.2 | 302.3 | 302.2 | - |
| Richmond-San Rafael Bridge Retrofit | | | | | | |
| Capital Outlay Support | 134.0 | (7.0) | 127.0 | 126.8 | 127.0 | - |
| Capital Outlay Construction | 780.0 | (90.5) | 689.5 | 667.5 | 689.5 | - |
| Total | 914.0 | (97.5) | 816.5 | 794.3 | 816.5 | - |
| Benicia-Martinez Bridge Retrofit | | | | | | - |
| Capital Outlay Support | 38.1 | - | 38.1 | 38.1 | 38.1 | - |
| Capital Outlay Construction | 139.7 | - | 139.7 | 139.7 | 139.7 | - |
| Total | 177.8 | - | 177.8 | 177.8 | 177.8 | - |
| Carquinez Bridge Retrofit | | | | | | |
| Capital Outlay Support | 28.7 | 0.1 | 28.8 | 28.8 | 28.8 | - |
| Capital Outlay Construction | 85.5 | (0.1) | 85.4 | 85.4 | 85.4 | - |
| Total | 114.2 | - | 114.2 | 114.2 | 114.2 | - |
| San Mateo-Hayward Retrofit | | | | | | - |
| Capital Outlay Support | 28.1 | - | 28.1 | 28.1 | 28.1 | - |
| Capital Outlay Construction | 135.4 | (0.1) | 135.3 | 135.3 | 135.3 | - |
| Total | 163.5 | (0.1) | 163.4 | 163.4 | 163.4 | - |
| Vincent Thomas Bridge Retrofit (Los Angeles) | | , , | | | | |
| Capital Outlay Support | 16.4 | - | 16.4 | 16.4 | 16.4 | - |
| Capital Outlay Construction | 42.1 | (0.1) | 42.0 | 42.0 | 42.0 | - |
| Total | 58.5 | (0.1) | 58.4 | 58.4 | 58.4 | |
| San Diego-Coronado Bridge Retrofit | 55.5 | () | | | | |
| Capital Outlay Support | 33.5 | (0.3) | 33.2 | 33.2 | 33.2 | _ |
| Capital Outlay Construction | 70.0 | (0.6) | 69.4 | 69.4 | 69.4 | - |
| Total | 103.5 | (0.9) | 102.6 | 102.6 | 102.6 | |
| | .00.0 | (0.0) | .02.0 | . 02.10 | . 02.10 | |

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions) Cont.

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|---|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a | С | d | e = c + d | f | g | h = g - e |
| Antioch Bridge | | | | | | |
| Capital Outlay Support | - | 31.0 | 31.0 | 15.1 | 34.7 | 3.7 |
| Capital Outlay Support by BATA | | | | 6.2 | | |
| Capital Outlay Construction | - | 70.0 | 70.0 | 39.8 | 51.2 | (18.8) |
| Total | - | 101.0 | 101.0 | 61.1 | 85.9 | (15.1) |
| Dumbarton Bridge | | | | | | |
| Capital Outlay Support | - | 56.0 | 56.0 | 24.4 | 57.7 | 1.7 |
| Capital Outlay Support by BATA | | | | 6.0 | | |
| Capital Outlay Construction | - | 92.7 | 92.7 | 26.2 | 87.7 | (5.0) |
| Total | - | 148.7 | 148.7 | 56.6 | 145.4 | (3.3) |
| Subtotal Capital Outlay Support | 1,433.1 | 295.6 | 1,728.7 | 1,531.3 | 1,832.9 | 104.2 |
| Subtotal Capital Outlay | 6,286.8 | 696.9 | 6,983.7 | 5,795.0 | 7,033.6 | 49.9 |
| Subtotal Other Budgeted Capital | 35.1 | (3.3) | 31.8 | 0.7 | 7.7 | (24.1) |
| Miscellaneous Program Costs | 30.0 | - | 30.0 | 25.5 | 30.0 | - |
| Subtotal Toll Bridge Seismic Retrofit Program | 7,785.0 | 989.2 | 8,774.2 | 7,352.5 | 8,904.2 | 130.0 |
| Net Programmatic Risks* | - | - | - | - | 93.2 | 93.2 |
| Program Contingency | 900.0 | (592.2) | 307.8 | | 84.6 | (223.2) |
| Total Toll Bridge Seismic Retrofit Program ¹ | 8,685.0 | 397.0 | 9,082.0 | 7,352.5 | 9,082.0 | |

¹ Figures may not sum up to totals due to rounding effects.

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions)

| Bridge | AB 144 Baseline Budget | TBPOC Current Approved Budget | Expenditures to date and Encumbrances as of November 2011 see Note (1) | Estimated costs not yet spent or Encumbered as of November 2011 | Total Forecast as of November 2011 |
|--|---------------------------|----------------------------------|--|---|--|
| а | b | С | d | е | f = d + e |
| Other Completed Projects | | | | | |
| Capital Outlay Support | 144.9 | 144.6 | 144.6 | - | 144.6 |
| Capital Outlay | 472.6 | 471.9 | 472.6 | (8.0) | 471.8 |
| Total | 617.5 | 616.5 | 617.2 | (0.8) | 616.4 |
| Richmond-San Rafael | | | | | |
| Capital Outlay Support | 134.0 | 127.0 | 126.8 | 0.2 | 127.0 |
| Capital Outlay | 698.0 | 689.5 | 667.8 | 21.7 | 689.5 |
| Project Reserves | 82.0 | - | - | - | - |
| Total | 914.0 | 816.5 | 794.6 | 21.9 | 816.5 |
| West Span Retrofit | | | | | |
| Capital Outlay Support | 75.0 | 74.8 | 74.8 | - | 74.8 |
| Capital Outlay | 232.9 | 227.4 | 227.3 | 0.1 | 227.4 |
| Total | 307.9 | 302.2 | 302.1 | 0.1 | 302.2 |
| West Approach | | | | | |
| Capital Outlay Support | 120.0 | 118.0 | 118.6 | 0.4 | 119.0 |
| Capital Outlay | 309.0 | 350.7 | 345.9 | (7.8) | 338.1 |
| Total | 429.0 | 468.7 | 464.5 | (7.4) | 457.1 |
| SFOBB East Span - Skyway | | | | | |
| Capital Outlay Support | 197.0 | 181.2 | 181.2 | - | 181.2 |
| Capital Outlay | 1,293.0 | 1,254.1 | 1,237.1 | 8.1 | 1,245.2 |
| Total | 1,490.0 | 1,435.3 | 1,418.3 | 8.1 | 1,426.4 |
| SFOBB East Span - SAS - Superstructure | | | | | |
| Capital Outlay Support | 214.6 | 375.5 | 379.3 | 95.1 | 474.4 |
| Capital Outlay | 1,753.7 | 2,046.8 | 1,617.5 | 468.1 | 2,085.6 |
| Total | 1,968.3 | 2,422.3 | 1,996.8 | 563.2 | 2,560.0 |
| SFOBB East Span - SAS - Foundations | | | | | |
| Capital Outlay Support | 62.5 | 37.6 | 37.6 | - | 37.6 |
| Capital Outlay | 339.9 | 307.3 | 309.3 | (4.3) | 305.0 |
| Total | 402.4 | 344.9 | 346.9 | (4.3) | 342.6 |
| Small YBI Projects | | | | (-7 | |
| Capital Outlay Support | 10.6 | 10.6 | 10.2 | 0.4 | 10.6 |
| Capital Outlay | 15.6 | 15.6 | 15.5 | 0.2 | 15.7 |
| Total | 26.2 | 26.2 | 25.7 | 0.6 | 26.3 |
| YBI Detour | EV.E | 20.2 | 20.1 | 0.0 | 20.0 |
| Capital Outlay Support | 29.5 | 90.7 | 87.7 | _ | 87.7 |
| Capital Outlay | 131.9 | 492.8 | 492.8 | (10.0) | 482.8 |
| Total | 161.4 | 583.5 | 580.5 | (10.0) | 570.5 |
| YBI- Transition Structures | 101.4 | 303.3 | 300.3 | (10.0) | 010.0 |
| Capital Outlay Support | 78.7 | 106.4 | 64.2 | 54.0 | 118.2 |
| Capital Outlay | 299.4 | 247.8 | 131.1 | 177.3 | 308.4 |
| Capital Cullay | ∠33. 4 | Z 1 1.0 | 101.1 | 111.5 | JUU. 4 |

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions) Cont.

| Contract | AB 144 Baseline Budget | TBPOC Current Approved Budget | Expenditures to date and Encumbrances as of November 2011 see Note (1) | Estimated Costs not yet spent or Encumbered as of November 2011 | 2011 |
|-------------------------------------|------------------------------|----------------------------------|---|--|-----------|
| a | b | С | d | е | f = d + e |
| Oakland Touchdown | | | | | |
| Capital Outlay Support | 74.4 | 108.9 | 89.2 | 28.0 | 117.2 |
| Capital Outlay | 283.8 | 339.0 | 215.3 | 118.6 | 333.9 |
| Total | 358.2 | 447.9 | 304.5 | 146.6 | 451.1 |
| East Span Other Small Projects | | | | | |
| Capital Outlay Support | 212.3 | 206.5 | 197.9 | 8.7 | 206.6 |
| Capital Outlay | 170.8 | 170.8 | 118.9 | 35.7 | 154.6 |
| Total | 383.1 | 377.3 | 316.8 | 44.4 | 361.2 |
| Existing Bridge Demolition | | | | | |
| Capital Outlay Support | 79.7 | 59.9 | 1.5 | 40.1 | 41.6 |
| Capital Outlay | 239.2 | 239.1 | - | 244.3 | 244.3 |
| Total | 318.9 | 299.0 | 1.5 | 284.4 | 285.9 |
| Antioch Bridge | | | | | |
| Capital Outlay Support | - | 31.0 | 15.2 | 13.3 | 28.5 |
| Capital Outlay Support by BATA | | | 6.2 | | 6.2 |
| Capital Outlay | - | 70.0 | 47.4 | 3.8 | 51.2 |
| Total | | 101.0 | 68.8 | 17.1 | 85.9 |
| Dumbarton Bridge | | | | | |
| Capital Outlay Support | - | 56.0 | 25.1 | 26.6 | 51.7 |
| Capital Outlay Support by BATA | | | 6.0 | - | 6.0 |
| Capital Outlay | - | 92.7 | 55.6 | 32.1 | 87.7 |
| Total | | 148.7 | 86.7 | 58.7 | 145.4 |
| | | | | | |
| Miscellaneous Program Costs | 30.0 | 30.0 | 25.5 | 4.5 | 30.0 |
| Total Capital Outlay Support | 1,463.2 | 1,758.7 | 1,591.6 | 271.3 | 1,862.9 |
| Total Capital Outlay | 6,321.8 | 7,015.5 | 5,954.1 | 1,087.2 | 7,041.3 |
| Program Total ¹ | 7,785.0 | 8,774.2 | 7,545.7 | 1,358.5 | 8,904.2 |

Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.
 BSA provided a distribution of program contingency in December 2004 based in Bechtel Infrastructure Corporation input.
 This Column is subject to revision upon completion of Department's risk assessment update.

⁽³⁾ Total Capital Outlay Support includes program indirect costs.

¹ Figures may not sum up to totals due to rounding effects.

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions)

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|--|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a a | С | d | e = c + d | Т | g | h = g - e |
| San Francisco-Oakland Bay Bridge East Span Replacement Project | | | | | | |
| East Span - SAS Superstructure | | | | | | |
| Capital Outlay Support | 214.6 | 160.9 | 375.5 | 353.8 | 474.4 | 98.9 |
| Capital Outlay Construction | 1,753.7 | 293.1 | 2,046.8 | 1,615.5 | 2,085.6 | 38.8 |
| Total | 1,968.3 | 454.0 | 2,422.3 | 1,969.3 | 2,560.0 | 137.7 |
| SAS W2 Foundations | | | | | | |
| Capital Outlay Support | 10.0 | (8.0) | 9.2 | 9.2 | 9.2 | - |
| Capital Outlay Construction | 26.4 | - | 26.4 | 26.5 | 26.4 | - |
| Total | 36.4 | (8.0) | 35.6 | 35.7 | 35.6 | - |
| YBI South/South Detour | | | | | | |
| Capital Outlay Support | 29.4 | 61.3 | 90.7 | 87.3 | 87.7 | (3.0) |
| Capital Outlay Construction | 131.9 | 360.9 | 492.8 | 466.0 | 482.8 | (10.0) |
| Total | 161.3 | 422.2 | 583.5 | 553.3 | 570.5 | (13.0) |
| East Span - Skyway | | | | | | |
| Capital Outlay Support | 197.0 | (15.8) | 181.2 | 181.2 | 181.2 | - |
| Capital Outlay Construction | 1,293.0 | (38.9) | 1,254.1 | 1,237.1 | 1,245.2 | (8.9) |
| Total | 1,490.0 | (54.7) | 1,435.3 | 1,418.3 | 1,426.4 | (8.9) |
| East Span - SAS E2/T1 Foundations | | | | | | - |
| Capital Outlay Support | 52.5 | (24.1) | 28.4 | 28.4 | 28.4 | - |
| Capital Outlay Construction | 313.5 | (32.6) | 280.9 | 274.8 | 278.6 | (2.3) |
| Total | 366.0 | (56.7) | 309.3 | 303.2 | 307.0 | (2.3) |
| YBI Transition Structures (see notes below) | | | | | | |
| Capital Outlay Support | 78.7 | 27.7 | 106.4 | 57.4 | 118.2 | 11.8 |
| Capital Outlay Construction | 299.3 | (51.5) | 247.8 | 71.3 | 308.4 | 60.6 |
| Total | 378.0 | (23.8) | 354.2 | 128.7 | 426.6 | 72.4 |
| * YBI- Transition Structures | | | | | | |
| Capital Outlay Support | | | 16.4 | 16.4 | 16.4 | - |
| Capital Outlay Construction | | | - | - | - | - |
| Total | | | 16.4 | 16.4 | 16.4 | - |
| * YBI- Transition Structures Contract No. 1 | | | | | | |
| Capital Outlay Support | | | 57.0 | 31.3 | 68.3 | 11.3 |
| Capital Outlay Construction | | | 185.5 | 71.3 | 226.8 | 41.3 |
| Total | | | 242.5 | 102.6 | 295.1 | 52.6 |
| * YBI- Transition Structures Contract No. 2 | | | | | | |
| Capital Outlay Support | | | 32.0 | 9.7 | 32.5 | 0.5 |
| Capital Outlay Construction | | | 59.0 | - | 78.3 | 19.3 |
| Total | | | 91.0 | 9.7 | 110.8 | 19.8 |
| * YBI- Transition Structures Contract No. 3 Landscape | | | | | | |
| Capital Outlay Support | | | 1.0 | - | 1.0 | - |
| Capital Outlay Construction | | | 3.3 | - | 3.3 | - |
| Total | | | 4.3 | - | 4.3 | - |

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions) Cont.

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|--|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a Caldand Tarrah darra (asa matasa kalam) | C | d | e = c + d | f | g | h = g - e |
| Oakland Touchdown (see notes below) | 74.4 | 34.5 | 108.9 | 88.2 | 117.2 | 8.3 |
| Capital Outlay Support Capital Outlay Construction | 283.8 | 55.2 | 339.0 | 208.7 | 333.9 | |
| Total | 358.2 | 89.7 | 447.9 | 206.7 296.9 | 451.1 | (5.1) 3.2 |
| * OTD Prior-to-Split Costs | 330.2 | 03.1 | 441.3 | 290.9 | 431.1 | 3.2 |
| Capital Outlay Support | | | 21.7 | 20.0 | 21.7 | |
| Capital Outlay Construction | | | 21.1 | 20.0 | 21.7 | |
| Total | | | 21.7 | 20.0 | 21.7 | |
| * OTD Submarine Cable(1) | | | 21.7 | 20.0 | 21.7 | - |
| Capital Outlay Support | | | 0.9 | 0.9 | 0.9 | _ |
| Capital Outlay Construction | | | 9.6 | 5.7 | 9.6 | - |
| Total | | | 10.5 | 6.6 | 10.5 | |
| * OTD No. 1 (Westbound) | | | 1010 | 0.0 | 10.0 | |
| Capital Outlay Support | | | 47.3 | 51.0 | 51.4 | 4.1 |
| Capital Outlay Construction | | | 212.0 | 203.0 | 203.3 | (8.7) |
| Total | | | 259.3 | 254.0 | 254.7 | (4.6) |
| * OTD No. 2 (Eastbound) | | | | | | (- / |
| Capital Outlay Support | | | 22.5 | 12.3 | 27.7 | 5.2 |
| Capital Outlay Construction | | | 62.0 | - | 58.1 | (3.9) |
| Total | | | 84.5 | 12.3 | 85.8 | 1.3 |
| * OTD Touchdown 2 Detour(2) | | | | | | |
| Capital Outlay Support | | | 15.0 | 3.2 | 14.0 | (1.0) |
| Capital Outlay Construction | | | 51.0 | - | 58.5 | 7.5 |
| Total | | | 66.0 | 3.2 | 72.5 | 6.5 |
| * OTD Electrical Systems | | | | | | |
| Capital Outlay Support | | | 1.5 | 0.8 | 1.5 | - |
| Capital Outlay Construction | | | 4.4 | - | 4.4 | - |
| Total | | | 5.9 | 0.8 | 5.9 | - |
| Existing Bridge Demolition | | | | | | |
| Capital Outlay Support | 79.7 | (19.8) | 59.9 | 1.2 | 41.6 | (18.3) |
| Capital Outlay Construction | 239.2 | (0.1) | 239.1 | - | 244.3 | 5.2 |
| Total | 318.9 | (19.9) | 299.0 | 1.2 | 285.9 | (13.1) |
| * Cantilever Section | | | | | | |
| Capital Outlay Support | | | - | - | 15.0 | |
| Capital Outlay Construction | | | - | - | 61.4 | |
| Total | | | | - | 76.4 | |
| * 504/288 Sections | | | | | _ | |
| Capital Outlay Support | | | - | 1.2 | 26.6 | |
| Capital Outlay Construction | | | - | - | 182.9 | |
| Total | | | - | 1.2 | 209.5 | |
| YBI/SAS Archeology | | | | | | |
| Capital Outlay Support | 1.1 | - | 1.1 | 1.1 | 1.1 | - |
| Capital Outlay Construction | 1.1 | - | 1.1 | 1.1 | 1.1 | - |
| Total | 2.2 | - | 2.2 | 2.2 | 2.2 | - |

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through November 30, 2011 (\$ Millions) Cont.

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|---|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a | С | d | e = c + d | f | g | h = g - e |
| YBI - USCG Road Relocation | | | | | | |
| Capital Outlay Support | 3.0 | - | 3.0 | 2.7 | 3.0 | - |
| Capital Outlay Construction | 3.0 | - | 3.0 | 2.8 | 3.0 | - |
| Total | 6.0 | - | 6.0 | 5.5 | 6.0 | - |
| YBI - Substation and Viaduct | | | | | | |
| Capital Outlay Support | 6.5 | - | 6.5 | 6.4 | 6.5 | - |
| Capital Outlay Construction | 11.6 | - | 11.6 | 11.3 | 11.6 | - |
| Total | 18.1 | - | 18.1 | 17.7 | 18.1 | - |
| Oakland Geofill | | | | | | - |
| Capital Outlay Support | 2.5 | - | 2.5 | 2.5 | 2.5 | - |
| Capital Outlay Construction | 8.2 | - | 8.2 | 8.2 | 8.2 | - |
| Total | 10.7 | - | 10.7 | 10.7 | 10.7 | - |
| Pile Installation Demonstration Project | | | | | | |
| Capital Outlay Support | 1.8 | - | 1.8 | 1.8 | 1.8 | - |
| Capital Outlay Construction | 9.3 | - | 9.3 | 9.2 | 9.3 | - |
| Total | 11.1 | - | 11.1 | 11.0 | 11.1 | - |
| Stormwater Treatment Measures | | | | | | |
| Capital Outlay Support | 6.0 | 2.2 | 8.2 | 8.2 | 8.2 | - |
| Capital Outlay Construction | 15.0 | 3.3 | 18.3 | 16.8 | 18.3 | - |
| Total | 21.0 | 5.5 | 26.5 | 25.0 | 26.5 | - |
| Right-of-Way and Environmental Mitigation | | | | | | |
| Capital Outlay Support | _ | - | _ | - | - | - |
| Capital Outlay & Right-of-Way | 72.4 | - | 72.4 | 51.7 | 80.4 | 8.0 |
| Total | 72.4 | - | 72.4 | 51.7 | 80.4 | 8.0 |
| Sunk Cost - Existing East Span Retrofit | | | | | | |
| Capital Outlay Support | 39.5 | - | 39.5 | 39.5 | 39.5 | |
| Capital Outlay Construction | 30.8 | - | 30.8 | 30.8 | 30.8 | _ |
| Total | 70.3 | | 70.3 | 70.3 | 70.3 | |
| Other Capital Outlay Support | 10.0 | | 70.0 | 70.0 | 70.0 | |
| Environmental Phase | 97.7 | | 97.7 | 97.8 | 97.7 | |
| Pre-Split Project Expenditures | 44.9 | | 44.9 | 44.9 | 44.9 | |
| Non-Project Specific Costs | 20.0 | (8.0) | 12.0 | 3.2 | 12.0 | |
| Total | 162.6 | ` , | 154.6 | 145.9 | 154.6 | |
| TOTAL | 102.0 | (8.0) | 104.0 | 140.0 | 134.0 | - |
| Subtotal Capital Outlay Support | 959.3 | 218.0 | 1,177.3 | 1,014.8 | 1,275.1 | 97.8 |
| Subtotal Capital Outlay Construction | 4,492.2 | 589.4 | 5,081.6 | 4,031.8 | 5,167.9 | 86.3 |
| Other Budgeted Capital | 35.1 | (3.3) | 31.8 | 0.7 | 7.7 | (24.1) |
| Total SFOBB East Span Replacement Project | 5,486.6 | 804.1 | 6,290.7 | 5,047.3 | 6,450.7 | 160.0 |

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions)

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|---|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a | С | d | e = c + d | f | g | h = g - e |
| | | | | | | |
| New Benicia-Martinez Bridge Project | | | | | | |
| New Bridge | | | | | | |
| Capital Outlay Support | | | | | | |
| BATA Funding | 84.9 | 7.2 | 92.1 | 91.9 | 92.1 | - |
| Non-Bata Funding | - | 0.1 | 0.1 | 0.1 | 0.1 | - |
| Subtotal | 84.9 | 7.3 | 92.2 | 92.0 | 92.2 | - |
| Capital Outlay Construction | 221.2 | 212 | | | | - |
| BATA Funding | 661.9 | 94.6 | 756.5 | 753.7 | 756.5 | - |
| Non-Bata Funding | 10.1 | - | 10.1 | 10.1 | 10.1 | - |
| Subtotal | 672.0 | 94.6 | 766.6 | 763.8 | 766.6 | - |
| Total | 756.9 | 101.9 | 858.8 | 855.8 | 858.8 | - |
| I-680/I-780 Interchange Reconstruction | | | | | | |
| Capital Outlay Support | | | | | | |
| BATA Funding | 24.9 | 5.2 | 30.1 | 30.1 | 30.1 | - |
| Non-Bata Funding | 1.4 | 5.2 | 6.6 | 6.3 | 6.6 | - |
| Subtotal | 26.3 | 10.4 | 36.7 | 36.4 | 36.7 | - |
| Capital Outlay Construction | | | | | | |
| BATA Funding | 54.7 | 26.9 | 81.6 | 77.1 | 81.6 | - |
| Non-Bata Funding | 21.6 | - | 21.6 | 21.7 | 21.7 | 0.1 |
| Subtotal | 76.3 | 26.9 | 103.2 | 98.8 | 103.3 | 0.1 |
| Total | 102.6 | 37.3 | 139.9 | 135.2 | 140.0 | 0.1 |
| I-680/Marina Vista Interchange Reconstruction | | | | | | |
| Capital Outlay Support | 18.3 | 1.9 | 20.2 | 20.2 | 20.2 | - |
| Capital Outlay Construction | 51.5 | 4.9 | 56.4 | 56.1 | 56.4 | - |
| Total | 69.8 | 6.8 | 76.6 | 76.3 | 76.6 | - |
| New Toll Plaza and Administration Building | 44.0 | | | | | |
| Capital Outlay Support | 11.9 | 3.8 | 15.7 | 15.7 | 15.7 | - |
| Capital Outlay Construction | 24.3 | 2.0 | 26.3 | 25.1 | 26.3 | - |
| Total | 36.2 | 5.8 | 42.0 | 40.8 | 42.0 | - |
| Existing Bridge & Interchange Modifications | | | | | | |
| Capital Outlay Support | 4.0 | 40.7 | 40.0 | 10.0 | 40.0 | |
| BATA Funding | 4.3 | 13.7 | 18.0 | 18.0 | 18.0 | - |
| Non-Bata Funding | - | 0.9 | 0.9 | 0.8 | 0.9 | - |
| Subtotal | 4.3 | 14.6 | 18.9 | 18.8 | 18.9 | - |
| Capital Outlay Construction | 47.0 | 00.0 | 50.0 | 27.2 | 50.0 | |
| BATA Funding | 17.2 | 32.8 | 50.0 | 37.2 | 50.0 | - |
| Non-Bata Funding | - | 9.5 | 9.5 | - | 9.5 | - |
| Subtotal | 17.2 | 42.3 | 59.5 | 37.2 | 59.5 | - |
| Total | 21.5 | 56.9 | 78.4 | 56.0 | 78.4 | |
| Other Contracts | | / | | | | |
| Capital Outlay Support | 11.4 | (0.9) | 10.5 | 9.7 | 10.5 | - |
| Capital Outlay Construction | 20.3 | 3.3 | 23.6 | 18.6 | 23.6 | - |
| Capital Outlay Right-of-Way | 20.4 | (0.1) | 20.3 | 17.0 | 20.3 | - |
| Total | 52.1 | 2.3 | 54.4 | 45.3 | 54.4 | - |

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|---|---------------------------------------|------------------|--|---|-------------------------------|-------------------------------|
| a | С | d | e = c + d | f | g | h = g - e |
| | | | | | | |
| New Benicia-Martinez Bridge Project continued | | | | | | |
| Subtotal BATA Capital Outlay Support | 155.7 | 30.9 | 186.6 | 185.6 | 186.6 | • |
| Subtotal BATA Capital Outlay Construction | 829.9 | 164.5 | 994.4 | 967.8 | 994.4 | - |
| Subtotal Capital Outlay Right-of-Way | 20.4 | (0.1) | 20.3 | 17.0 | 20.3 | - |
| Subtotal Non-BATA Capital Outlay Support | 1.4 | 6.2 | 7.6 | 7.2 | 7.6 | - |
| Subtotal Non-BATA Capital Outlay Construction | 31.7 | 9.5 | 41.2 | 31.8 | 41.3 | 0.1 |
| Project Reserves | 20.8 | 1.6 | 22.4 | - | 22.3 | (0.1) |
| Total New Benicia-Martinez Bridge Project | 1,059.9 | 212.6 | 1,272.5 | 1,209.4 | 1,272.5 | |
| Notes: | Includes EAs | 00601_,00603 | | 6_,00608_,00609 | | 060C_,0060E_, |
| Carquinez Bridge Replacement Project | | | | | | |
| New Bridge | | | | | | |
| Capital Outlay Support | 60.5 | (0.3) | 60.2 | 60.2 | 60.2 | - |
| Capital Outlay Construction | 253.3 | 2.7 | 256.0 | 255.9 | 256.0 | _ |
| Total | 313.8 | 2.4 | 316.2 | 316.1 | 316.2 | |
| Crockett Interchange Reconstruction | | | 0.0.2 | • | 0.0.2 | |
| Capital Outlay Support | 32.0 | (0.1) | 31.9 | 31.9 | 31.9 | - |
| Capital Outlay Construction | 73.9 | (1.9) | 72.0 | 71.9 | 72.0 | _ |
| Total | 105.9 | (2.0) | 103.9 | 103.8 | 103.9 | |
| Existing 1927 Bridge Demolition | 10010 | (=:0) | 100.0 | 10010 | 10010 | |
| Capital Outlay Support | 16.1 | (0.3) | 15.8 | 15.8 | 15.8 | _ |
| Capital Outlay Construction | 35.2 | (0.5) | 35.2 | 35.0 | 35.2 | _ |
| Total | 51.3 | (0.3) | 51.0 | 50.8 | 51.0 | |
| Other Contracts | 31.3 | (0.3) | 31.0 | 30.0 | 31.0 | _ |
| Capital Outlay Support | 15.8 | 0.9 | 16.7 | 16.5 | 16.7 | |
| Capital Outlay Support | 18.8 | (1.2) | 17.6 | 16.4 | 17.6 | _ |
| Capital Outlay Right-of-Way | 10.5 | (0.1) | 10.4 | 9.9 | 10.4 | - |
| Total | 45.1 | , , | 44.7 | 42.8 | 44.7 | - |
| iotai | 45.1 | (0.4) | 44.1 | 42.0 | 44.1 | • |
| Subtotal BATA Capital Outlay Support | 124.4 | 0.2 | 124.6 | 124.4 | 124.6 | |
| Subtotal BATA Capital Outlay Construction | 381.2 | (0.4) | 380.8 | 379.2 | 380.8 | - |
| Subtotal Capital Outlay Right-of-Way | 10.5 | (0.1) | 10.4 | 9.9 | 10.4 | - |
| Project Reserves | 12.1 | (9.7) | 2.4 | • | 2.4 | |
| Total Carquinez Bridge Replacement Project ¹ | 528.2 | (10.0) | 518.2 | 513.5 | 518.2 | |
| Notes | 01301_,01302 | DF_,0130G_,01 | 4_,01305_,013(30H_,0130J_,0 | 06_,01307_,0130 0453_,00493_,0 | | |

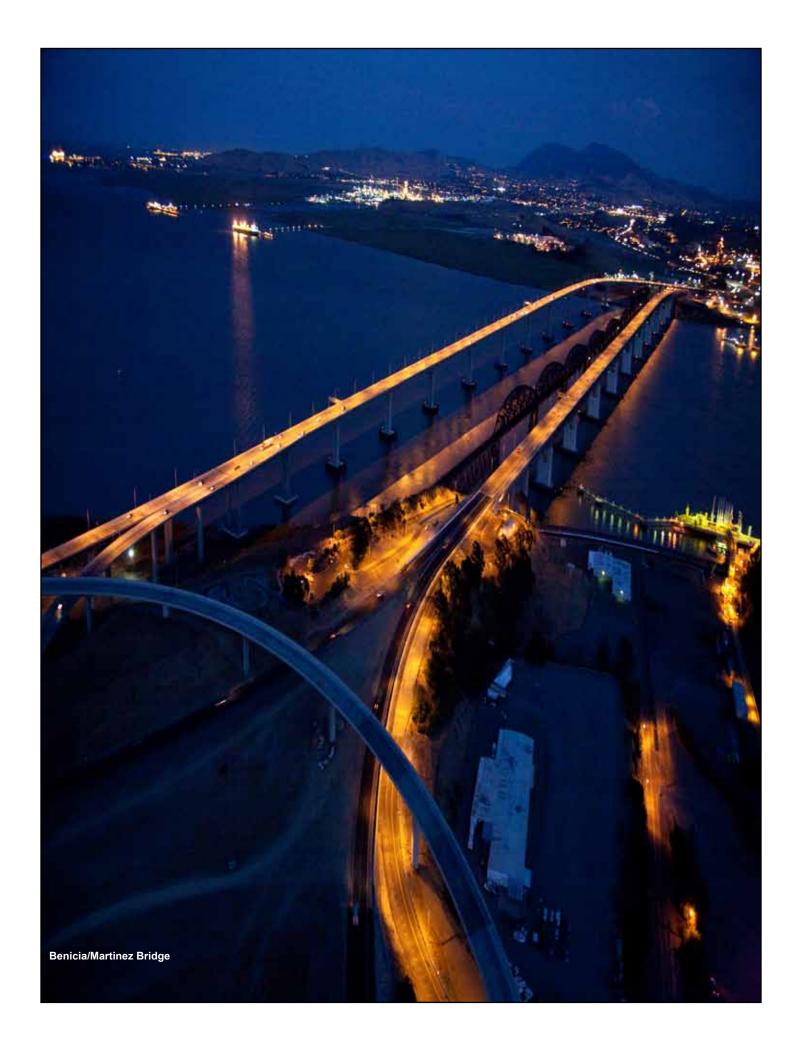
¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

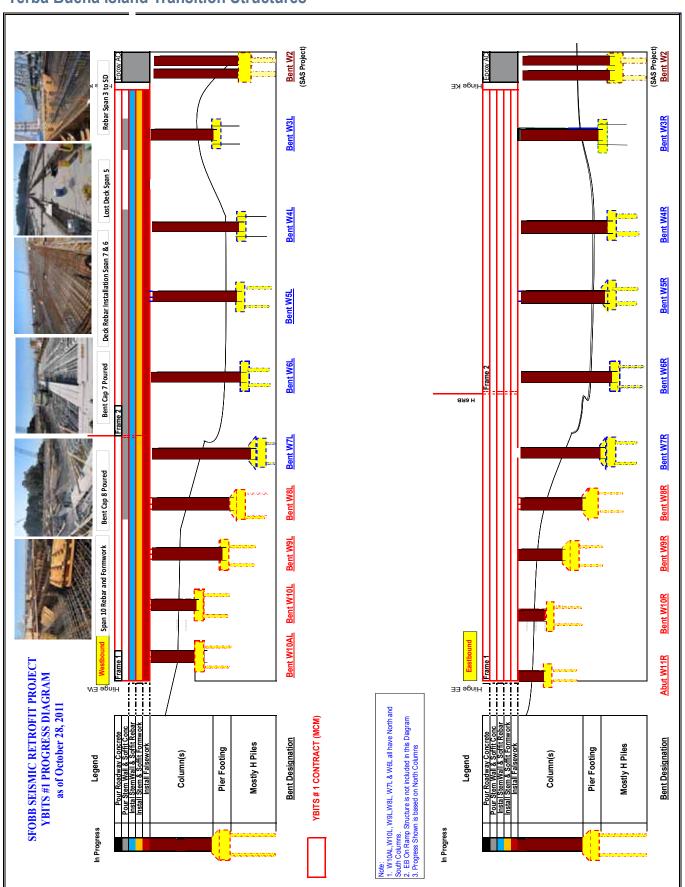
| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|---|---------------------------------------|------------------|--|------------------------|-------------------------------|-------------------------------|
| a | с | d | e = c + d | f | g | h = g - e |
| Richmond-San Rafael Bridge Trestle. Fender, and Deck Join | t Dehabilitation | | | | | |
| Capital Outlay Support | i Keliabilitation | | | | | |
| BATA Funding | 2.2 | (0.8) | 1.4 | 1.4 | 1.4 | _ |
| Non-BATA Funding | 8.6 | 1.8 | 10.4 | 10.4 | 10.4 | |
| Subtotal | 10.8 | 1.0 | 11.8 | 11.8 | 11.8 | _ |
| Capital Outlay Construction | 10.0 | 1.0 | 11.0 | 11.0 | 11.0 | - |
| BATA Funding | 40.2 | (6.8) | 33.4 | 33.3 | 33.4 | |
| Non-BATA Funding | 51.1 | (0.0) | 51.1 | 51.1 | 51.1 | - |
| Subtotal | 91.3 | (6.8) | 84.5 | 84.4 | 84.5 | - |
| Project Reserves | 91.5 | 0.8 | 0.8 | 04.4 | 0.8 | - |
| Total | 102.1 | (5.0) | 97.1 | 96.2 | 97.1 | _ |
| Richmond-San Rafael Bridge Deck Overlay Rehabilitation | 102.1 | (3.0) | 37.1 | 90.2 | 37.1 | |
| Capital Outlay Support | | | | | | |
| BATA Funding | 4.0 | (0.7) | 3.3 | 3.3 | 3.3 | |
| Non-BATA Funding | 4.0 | (4.0) | 0.0 | 5.5 | 0.0 | - |
| Subtotal | 8.0 | (4.0) | 3.3 | 3.3 | 3.3 | - |
| Capital Outlay Construction | 16.9 | (0.6) | 16.3 | 16.3 | 16.3 | - |
| Project Reserves | 0.1 | 0.3 | 0.4 | 10.5 | 0.4 | _ |
| Total | 25.0 | (5.0) | 20.0 | 19.6 | 20.0 | _ |
| Richmond Parkway Project (RM 1 Share Only) | 23.0 | (3.0) | 20.0 | 19.0 | 20.0 | |
| Capital Outlay Support | | | | | | _ |
| Capital Outlay Construction | 5.9 | - | 5.9 | 4.3 | 5.9 | _ |
| Total | 5.9 | _ | 5.9 | 4.3 | 5.9 | _ |
| San Mateo-Hayward Bridge Widening | 0.5 | _ | 0.0 | 4.5 | 0.0 | _ |
| Capital Outlay Support | 34.6 | (0.5) | 34.1 | 34.1 | 34.1 | _ |
| Capital Outlay Construction | 180.2 | (6.1) | 174.1 | 174.1 | 174.1 | |
| Capital Outlay Right-of-Way | 1.5 | (0.1) | 0.6 | 0.5 | 0.6 | _ |
| Project Reserves | 1.5 | (0.5) | 1.0 | - | 1.0 | _ |
| Total | 217.8 | (8.0) | 209.8 | 208.7 | 209.8 | |
| I-880/SR-92 Interchange Reconstruction | 217.0 | (0.0) | 203.0 | 200.7 | 203.0 | |
| Capital Outlay Support | 28.8 | 35.8 | 64.6 | 61.4 | 64.6 | _ |
| Capital Outlay Construction | 20.0 | 00.0 | 01.0 | 01.1 | 01.0 | |
| BATA Funding | 85.2 | 68.4 | 153.6 | 147.5 | 153.6 | _ |
| Non-BATA Funding | 9.6 | - | 9.6 | 147.5 | 9.6 | _ |
| Subtotal | 94.8 | 68.4 | 163.2 | 147.5 | 163.2 | _ |
| Capital Outlay Right-of-Way | 9.9 | 7.3 | 17.2 | 14.6 | 17.2 | _ |
| Project Reserves | 0.3 | (0.3) | - 17.2 | - | - 17.2 | _ |
| Total | 133.8 | 111.2 | 245.0 | 223.5 | 245.0 | _ |
| Bayfront Expressway Widening | 100.0 | 111.2 | 270.0 | 220.0 | 270.0 | _ |
| Capital Outlay Support | 8.6 | (0.2) | 8.4 | 8.4 | 8.4 | - |
| Capital Outlay Construction | 26.5 | (1.5) | 25.0 | 24.9 | 25.0 | _ |
| Capital Outlay Right-of-Way | 0.2 | (1.0) | 0.2 | 0.2 | 0.2 | - |
| Project Reserves | 0.8 | (0.3) | 0.5 | - | 0.5 | _ |
| Total | 36.1 | (2.0) | 34.1 | 33.5 | 34.1 | |
| . 5001 | 00.1 | (2.0) | 04.1 | 00.0 | 04.1 | |

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

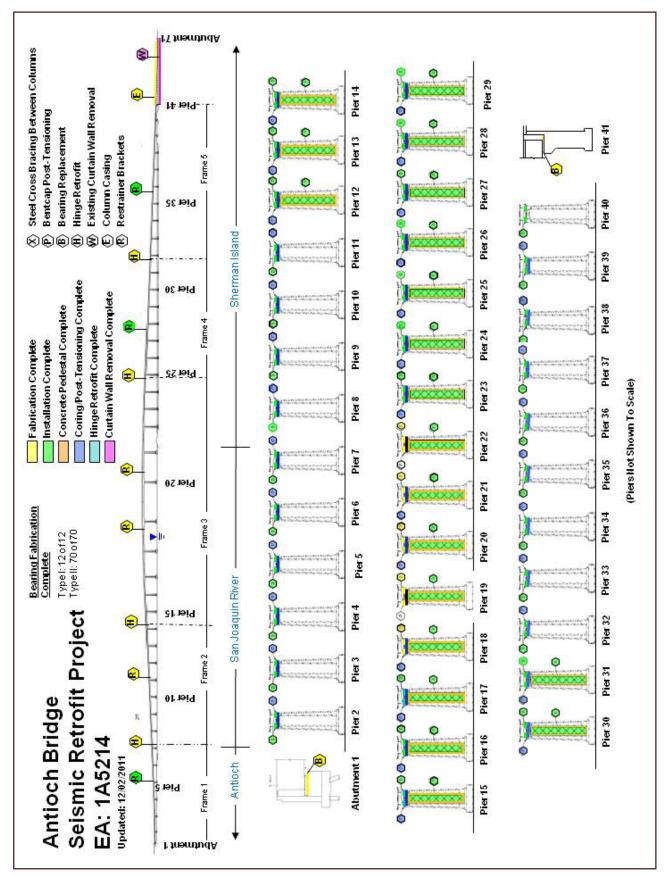
| Contract | AB 144 / SB 66 Budget (07/2005) | Approved Changes | Current Approved Budget (11/2011) | Cost to Date (11/2011) | Cost Forecast (11/2011) | At- Completion Variance |
|---|---------------------------------------|------------------|--|------------------------------------|-------------------------------|-------------------------------|
| a | С | d | e = c + d | f | g | h = g - e |
| | | | | | | |
| US 101/University Avenue Interchange Modification | | | | | | |
| Capital Outlay Support | - | - | - | - | - | - |
| Capital Outlay Construction | 3.8 | - | 3.8 | 3.7 | 3.8 | - |
| Total | 3.8 | | 3.8 | 3.7 | 3.8 | - |
| | | | | | | |
| Subtotal BATA Capital Outlay Support | 358.3 | 64.7 | 423.0 | 418.6 | 423.0 | - |
| Subtotal BATA Capital Outlay Construction | 1,569.8 | 217.5 | 1,787.3 | 1,751.1 | 1,787.3 | - |
| Subtotal Capital Outlay Right-of-Way | 42.5 | 6.2 | 48.7 | 42.2 | 48.7 | - |
| Subtotal Non-BATA Capital Outlay Support | 14.0 | 4.0 | 18.0 | 17.6 | 18.0 | - |
| Subtotal Non-BATA Capital Outlay Construction | 92.4 | 9.5 | 101.9 | 82.9 | 102.0 | 0.1 |
| Project Reserves | 35.6 | (8.1) | 27.5 | - | 27.4 | (0.1) |
| Total RM1 Program | 2,112.6 | 293.8 | 2,406.4 | 2,312.4 | 2,406.4 | - |
| | | | | | | |
| Notes: | | | | ender, and Deck 38U_ and 04157 | | ilitation |
| | | | | icludes EAs 003 509_,27740_,277 | |)4503_,04504_, |



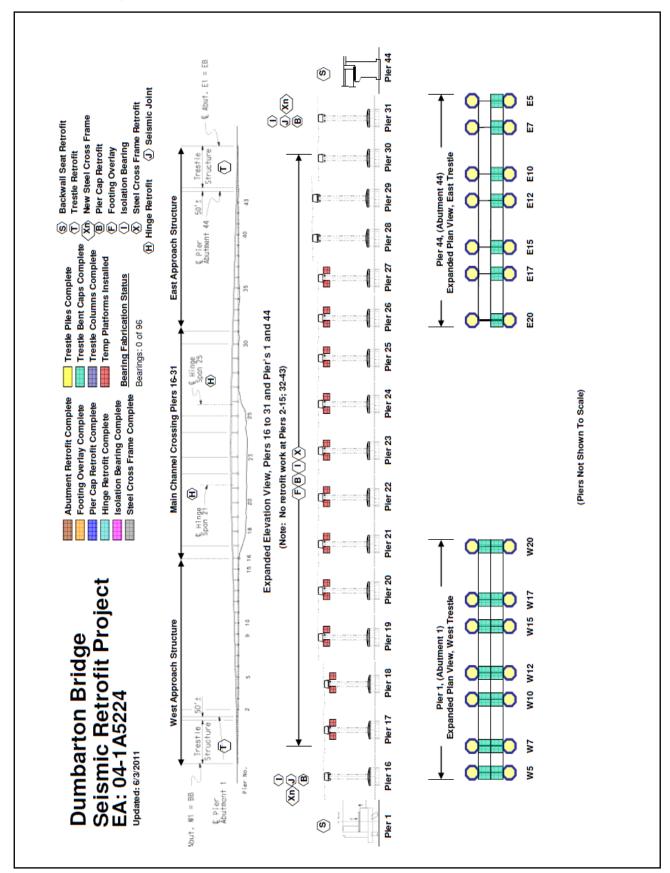
Appendix D: Progress Diagrams Yerba Buena Island Transition Structures

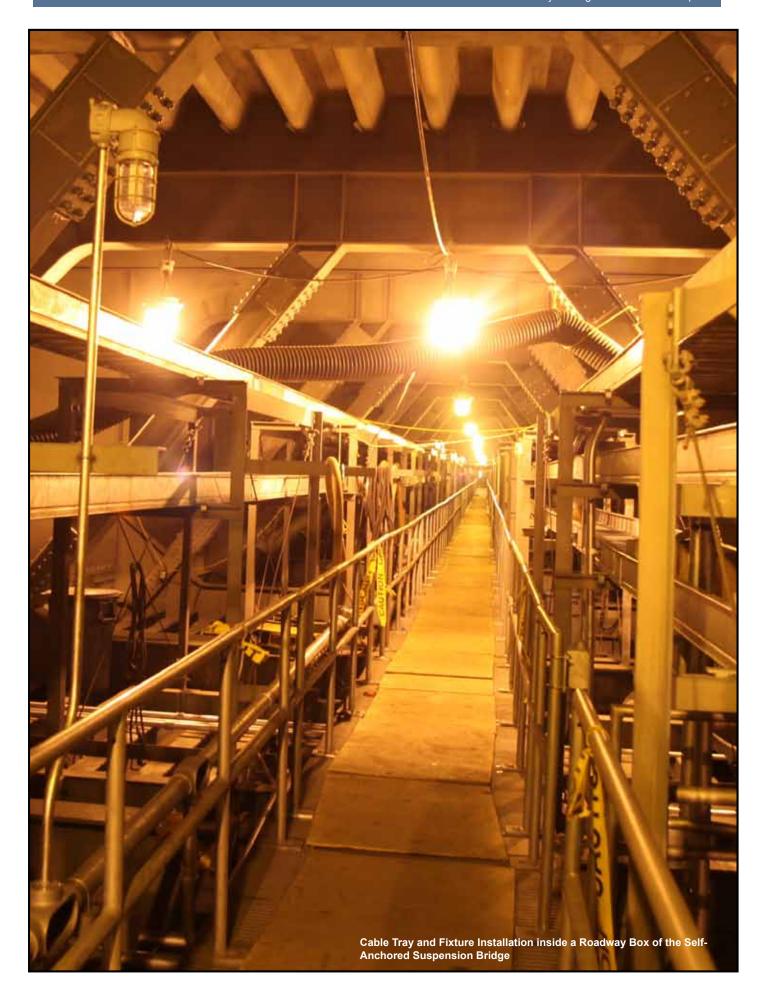


Appendix D: Progress Diagrams (cont.) Antioch Bridge



Appendix D: Progress Diagrams Dumbarton Bridge









Appendix E: Project Progress Photographs Self-Anchored Suspension Bridge Field Work



Strand Socket Ready for Attachment to Pulling Arm



Strand Socket Attached to the Pulling Arm Beginning Pull toward Tower



Rebar Cage for the Peer Review T1 CIDH Test Pile



Pour for Peer Review T1 CIDH Test Pile





Appendix E: Project Progress Photographs 92/880 Interchange



Aerial of Recently Completed 92/880 Interchange Looking East



Aerial of Recently Completed 92/880 Interchange Nearing Completion Looking West



Aerial of Recently Completed SR 92/880 Interchange Looking West



Aerial of Recently Completed SR 92/880 Interchange Looking South

Appendix E: Project Progress Photographs Antioch Bridge



Completed Cross-Bracing Installation



Completed Isolation Bearing Installed at Bent Cap

Appendix E: Project Progress Photographs Dumbarton Bridge



Dumbarton Bridge - Core Drilling of Bent Caps for Addition of Reinforcing Steel



Dumbarton Bridge - Wall Being Cast for Pump Station

Appendix E: Project Progress Photographs

Westbound Oakland Detour





Foundation Footings for Pier Wall

Straddle Wall Drainage





Pier Wall

Foundation Pier Wall



Westbound Oakland Touchdown Detour Construction Progress

Appendix E: Project Progress Photographs

Yerba Buena Island Transition Structure #1 Westbound



YBITS #1 Westbound First Section of Roadway Ready for Concrete Deck Placement



YBITS #1 Westbound First Section of Roadway Deck Poured



YBITS #1 Westbound First Section of Roadway Deck Poured

Appendix F: Glossary of Terms

Glossary of Terms

AB144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

APPROVED CHANGES: For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

CURRENT APPROVED BUDGET: The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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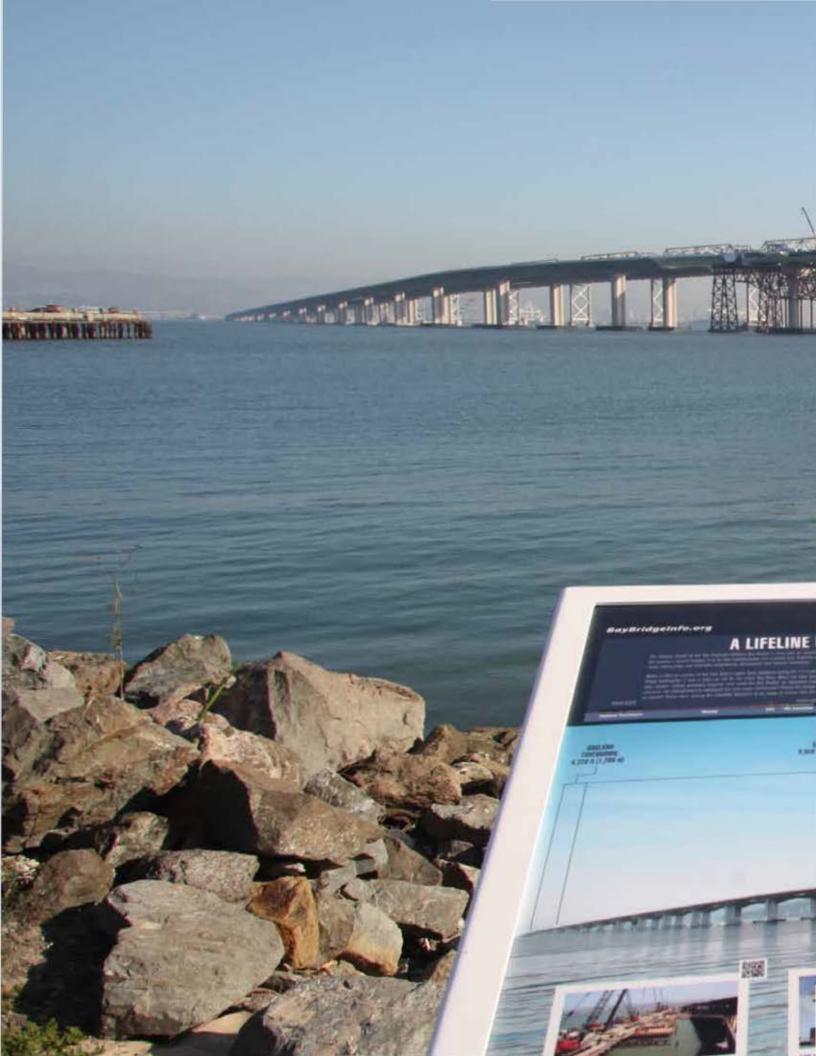
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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is \$1,574,873.73.











TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. – 3b

Item – Progress Reports

FHWA 2011 Annual Update to the Financial Plan of the San Francisco-Oakland Bay Bridge East Span Seismic

Safety Project

Recommendation:

APPROVAL

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

TBPOC approval of the 2011 Annual Update to be submitted to the Federal Highway Administration (FHWA) is being requested. The annual update provides similar and consistent information based on the published TBPOC quarterly reports.

The PMT has reviewed the report and recommends it for TBPOC approval.

Attachment:

2011 Annual Update to the Financial Plan of the San Francisco–Oakland Bay Bridge East Span Seismic Safety Project

2011 ANNUAL UPDATE TO THE FINANCE PLAN OF THE SAN FRANCISCO – OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

This annual update is submitted by the California Department of Transportation (Department) in accordance with the requirements of Section 1305 (b) of the Transportation Efficiency Act for the 21st Century, and Title 23 United States Code, Section 106 (h).

Introduction and Summary

The San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (ESSSP) is part of the \$8.685 billion Toll Bridge Seismic Retrofit Program (TBSRP). The TBSRP was established to finance the retrofit or replacement of seven state-owned toll bridges. The funding plan for the TBSRP was established by Senate Bill (SB) 60 in 1997, Assembly Bill (AB) 1171 in 2001, and AB 144/SB 66 in 2005.

AB 144 established a comprehensive financial plan for the TBSRP, including the consolidation and financial management of all toll revenues collected on the state-owned toll bridges in the San Francisco Bay Area under the jurisdiction of the Bay Area Toll Authority (BATA). The bill provides \$630 million in additional state funds and authorizes BATA to increase tolls on the Bay Area state-owned toll bridges by at least an additional \$1.00 on January 1, 2007 to provide adequate funding to complete the TBSRP.

In addition, AB 144 and SB 66 significantly strengthen the program and project oversight activities for the TBSRP. The bills created the Toll Bridge Program Oversight Committee (TBPOC) to implement project oversight and control processes for the TBSRP. The TBPOC is comprised of the Director of the Department of Transportation (Caltrans), the Executive Director of BATA, and the Executive Director of the California Transportation Commission (CTC). The TBPOC's program oversight activities include review and approval of contract bid documents, review and resolution of project issues, evaluation and approval of contract change orders and claims, and the issuance of monthly and quarterly progress reports.

Under AB 144, the baseline budget to retrofit or replace the seven state-owned toll bridges was set at \$7.785 billion and a \$900 million program contingency, for a total program budget of \$8.685 billion. The bill reaffirms the self-anchored suspension design for the SFOBB East Span connector. The budgeted total program costs and the funding sources remain unchanged from AB 144.

In January 2010, the seismic retrofit of the Antioch and Dumbarton bridges were added to the Toll Bridge Seismic Retrofit Program per AB 1175. Based on AB 1175, the budget for the seismic retrofit of these two bridges is \$750 million. The total budget for AB 1171/AB 144//AB 1175 is \$9.435 billion. See *Table 1 – Toll Bridge Seismic Retrofit Program Financial Status – Program Budget*.



Program Budget

AB 1171/AB 144/AB 1175 established a funding level of \$9.435 billion for the TBSRP. The entire program is financed through a combination of toll revenues, federal, state and local funds. See *Table 1 - Toll Bridge Seismic Retrofit Program Financial Status —Program Budget*.

Table 1 - Toll Bridge Seismic Retrofit Program Financial Status - Program Budget

As of September 30, 2011 (\$ in Millions)

| | Budgeted | Funding Available & Contributions |
|--|----------|---|
| Financing | | |
| Seismic Surcharge Revenue AB 1171 | \$2,282 | \$2,282.0 |
| Seismic Surcharge Revenue AB 144 | \$2,150 | \$2,150.0 |
| Seismic Surcharge Revenue AB 1175 ⁽⁶⁾ | \$750 | \$750.0 |
| BATA Consolidation | \$820 | \$820.0 |
| Subtotal - Financing | \$6,002 | \$6,002.0 |
| Contributions | | |
| Proposition 192 | \$790 | \$789.0 |
| San Diego Coronado Toll Bridge Revenue Fund | \$33 | \$33.0 |
| Vincent Thomas Bridge | \$15 | \$6.9 |
| State Highway Account (1)(2) | \$745 | \$745.0 |
| Public Transportation Account (1)(3) | \$130 | \$130.0 |
| ITIP/SHOPP/Federal Contingency (4) | \$448 | \$300.0 |
| Federal Highway Bridge Replacement and Rehabilitation (HBRR) | \$642 | \$642.0 |
| SHA - East Span Demolition | \$300 | \$0.0 |
| SHA - "Efficiency Savings" (5) | \$130 | \$113.0 |
| Redirect Spillover | \$125 | \$125.0 |
| Motor Vehicle Account | \$75 | \$75.0 |
| Subtotal - Contributions | \$3,433 | \$2,958.9 |
| Total Funding | \$9,435 | \$8,960.9 |
| Encumbered to Date | | \$7,293.3 |
| Remaining Unallocated | | \$1,667.6 |
| Expenditures | | |
| Capital Outlay | | \$5,742.5 |
| State Operations | | \$1,538.6 |
| Antioch and Dumbarton Expenditures by BATA | | \$12.2 |
| Total Expenditures | 9 | \$7,293.3 |
| Encumbrances | | |
| Capital Outlay | | \$0.0 |
| State Operations | 174 | \$0.0 |
| Total Encumbrances | 19 | \$0.0 |
| Total Expenditures and Encumbrances | 772 | \$7,293.3 |

⁽¹⁾ The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.

⁽⁶⁾ As of January 1, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175.



⁽²⁾ To date, \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.

⁽³⁾ To date, \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.

⁽⁴⁾ To date, \$300 million has been transferred from the ITIP/SHOPP/Federal Contingency to the TBSRP.

⁽²⁾ To date, \$113 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144. Approximately \$17 million remains to be distributed as scheduled by the CTC.



Of the \$9.435 billion budgeted for the TBSRP, \$7.3 billion has been allocated as of September 30, 2011. Through September 2005, \$789 million provided by Proposition 192 has been allocated by the CTC. The final \$1 million from the budgeted Proposition 192 contribution will become available to the TBSRP upon allocation by CTC. Caltrans plans to request the final \$1 million Proposition 192 allocation at future CTC meeting. For contributions from Vincent Thomas Bridge (VTB), the remaining \$8.1 million budgeted contribution is not available. When funds from the VTB account were transferred to the TBSRP, the VTB account was short \$8.1 million. Therefore, the TBSRP has an \$8.1 million shortfall. The schedule to transfer ITIP/SHOPP/Federal Contingency, the SHA – East Span Demolition, and the SHA – Efficient Savings are shown in *Table 2 - Schedule of Contributions to the Toll Bridge Seismic Retrofit Program*.

The schedule as shown in *Table 2 - Schedule of Contributions to the Toll Bridge Seismic Retrofit Program* was adopted by CTC in December 2005 for the transfer of funds to pledge state fund contribution to the financing of the TBSRP per BATA's adopted finance plan.

Table 2 - Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ in Millions)

| Source | Description | 2005 - 06 (Actual) | 2006 - 07 (Actual) | 2007 - 08 (Actual) | 2008 - 09 (Actual) | 2009 - 10 (Actual) | 2010 - 11 (Actual) | 2011 - 12 (Actual) | 2012 - 13 | 2013 - 14 | Total |
|---------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-----------|-------|
| | SHA | 290 | | | | | | | | | 290 |
| | PTA | 80 | 40 | | | | | | | | 120 |
| AB 1171 | Highway Bridge Replacement and Rehabilitation (HBRR) | 100 | 100 | 100 | 42 | | | | | | 342 |
| | Contingency | | | | 1 | 99 | 100 | 100 | 148 | | 448 |
| | SHA* | 2 | 8 | | | | 53 | 50 | 17 | | 130 |
| AB 144 | Motor Vehicle Account (MVA) | 75 | | | | | | | | | 75 |
| | Spillover | | 125 | | | | | | | | 125 |
| | SHA** | | | | | | | | | 300 | 300 |
| | | 547 | 273 | 100 | 43 | 99 | 153 | 150 | 165 | 300 | 1830 |

^{*} Caltrans Efficiency Savings

^{**} SFOBB East Span Demolition Cost

Program Financing and Cash Flow Projections

AB 144 consolidated the administration of all toll revenues collected on the state-owned Bay Area toll bridges and financing of the TBSRP under the jurisdiction of the BATA. BATA has direct programmatic responsibilities for the administration of all toll revenues collected on the state-owned bridges in the Bay Area and responsibilities for financial management of the TBSRP, including:

- Administrative responsibility for collection and accounting of all toll revenues.
- Authorization to increase tolls on the state-owned bridges by \$1.00, effective no sooner than January 1, 2007.
- Project level toll setting authority as necessary to cover additional cost increases beyond the funded \$900 million program contingency in order to complete the toll bridge seismic retrofit program.
- Assumption of funding all of the roadway and bridge structure maintenance from Caltrans once bridge seismic retrofit projects are completed.

In accordance with its responsibilities provided under the law, in September 2005, BATA adopted a finance plan for the TBSRP. The major components of the finance plan include:

- Issuing \$6.2 billion in debt, including defeasance of \$1.5 billion in outstanding State Infrastructure Bank bonds and commercial paper;
- Increasing tolls on the state-owned bridges by \$1.00 (from \$3.00 to \$4.00 for two-axle vehicles), effective January 1, 2007;
- Securing the maximum amount of state funding early in the construction schedule to most efficiently use toll funds (see discussion below); and,
- Locking in historically low interest rates to the extent possible in order to improve the chances that the entire toll program construction and the operations and maintenance can be delivered within the \$4.00 auto toll level.

In September 2005, BATA approved a Finance Plan for the TBSRP and other toll bridge improvement programs dependent on toll revenues from the state-owned bridges. The finance plan calls for \$6.2 billion in new debt issuances, including defeasance of the existing outstanding I-Bank bonds. Consistent with the finance plan, in December 2005, BATA approved the issuance of up to \$1.0 billion of 2006 toll bridge revenue bonds. The bond issuance will provide adequate cash flow to fund the SAS contract for the ESSSP, which was awarded on May 3, 2006.

Furthermore, in March 2006, BATA approved the issuance of \$1.3 billion in bonds to defease the I-Bank bonds approved in October 2005. Additionally, pursuant to the law, BATA held two public hearings, one in October and one in November 2005, to receive public testimony regarding the proposed \$1.00 seismic surcharge toll increase beginning on January 1, 2007 on the state-owned toll bridges in the Bay Area. BATA approved the toll increase on January 25, 2006.

Furthermore, SB 66, enacted on September 29, 2005, appropriates \$75 million of specified Motor Vehicle Account funds and \$125 million of other specified state funds for state-owned toll bridges in the Bay Area. These funds have already been transferred to the Toll Bridge Seismic Retrofit Account.

Furthermore, AB 1175, enacted on January 1, 2010, added the seismic retrofit of the Antioch and Dumbarton bridges to the TBSRP. BATA has taken action to raise tolls on the state-owned Bay Area toll bridges to fund these projects. The toll increases went into effect in the summer of 2010. These increases include tolls for carpoolers and congestion pricing on the Bay Bridge. The total budget for the seismic retrofit of these two bridges per AB 1175 is \$750 million.

The following pro forma financial statement projects the financial operations and results for BATA for fiscal years 2012-2020. See *Table 3 - BATA Pro Forma Financial Projections*.





SFOBB East Span Seismic Safety Project 2011 Financial Update

Table 3 - Bay Area Toll Authority Pro Forma Financial Projections

(\$ in Thousand)
(Updated as of December 2011)

| | | FY 2012 | | FY 2013 | | FY 2014 | | FY 2015 | | FY 2016 | | FY 2017 | | FY 2018 | | FY 2019 | | FY 2020 |
|---------------------------------|----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|---------------------|----|------------------------|----|---------------------|----|---------------------|----|------------------|
| Operating Revenue | | | | | | | | | | | | | | | | | | |
| : Toll Revenue | S | 619,003 | \$ | 642,591 | \$ | 645,804 | | \$649,033 | | \$652,278 | | \$655,539 | | \$658,817 | | \$662,111 | | \$665,422 |
| : Interest Income | | 20,490 | | 30,407 | | 35,190 | | 42,626 | | 52,359 | | 51,763 | | 49,114 | | 48,915 | | 50,236 |
| Total Operating Revenue | \$ | 639,493 | \$ | 672,998 | \$ | 680,994 | \$ | 691,659 | \$ | 704,637 | \$ | 707,302 \$ | S | 707,931 | \$ | 711,026 | \$ | 715,658 |
| Operating Expenses | | | | | | | | | | | | | | | | | | |
| Other Operating Expenses* | \$ | (45,528) | \$ | (45,755) | \$ | (45,984) | \$ | (46,214) | \$ | (46,445) | \$ | (46,677) S | 3 | (46,911) | \$ | (47,145) | \$ | (47,381) |
| : Toll Operating Expenses | | (69,190) | | (75,353) | | (77,106) | | (78,909) | | (80,761) | | (82,665) | | (84,621) | | (86,632) | \$ | (88,699) |
| Total Operating Expenses | \$ | (114,718) | \$ | (121,108) | \$ | (123,090) | \$ | (125,123) | \$ | (127,206) | \$ | (129,342) \$ | 6 | (131,532) | \$ | (133,777) | \$ | (136,080) |
| Net Before Debt Service | \$ | 524,775 | \$ | 551,890 | \$ | 557,904 | \$ | 566,536 | \$ | 577,431 | \$ | 577,960 \$ | \$ | 576,399 | \$ | 577,249 | \$ | 579,578 |
| D. I. C. | | (12.1.105) | | /455 405) | | /450 04 ft | | /100 110 | | (505.450 | | /50 5 04 0V | | (525 50 t) | | | \$ | - (570.04.0 |
| Net Operating Revenue | S | (434,495) 90,280 | _ | (455,105) 96,785 | • | (458,844) 99,060 | • | (488,440) 78,096 | • | (507,456) 69,975 | • | (527,810) 50,150 \$ | _ | (527,794) 48,605 | _ | (527,817) 49,432 | _ | (578,816) 762 |
| State Contribution (AB144/SB66) | | | | | | | | | | | | | | | | | | |
| CONTINGENCY ** | S | 100,000 | \$ | 148,000 | | | | | \$ | - | \$ | - S | S | 4 | | | \$ | = |
| EFFICIENCY SAVINGS** | \$ | 50,000 | \$ | 17,000 | | | | | | | | | | | | | \$ | - |
| HBRR ** | | | | | | | | | | | | | | | | | \$ | - |
| Total State Contribution | \$ | 150,000 | \$ | 165,000 | \$ | 12 | \$ | 14. | \$ | 14 | \$ | - S | \$ | - | \$ | - | \$ | ~ |
| :Debt Proceeds | | 300,000 | | - | | 450,000 | | 200,000 | | 325,000 | | - | | = | | | S | |
| Total Non Operating Revenue | \$ | 450,000 | \$ | 165,000 | \$ | 450,000 | \$ | 200,000 | \$ | 325,000 | \$ | - \$ | S | 4 | \$ | - | \$ | = |
| Total TBSRP Expenses | \$ | (727,721) | \$ | (507,697) | \$ | (395,166) | \$ | (209,317) | \$ | (199,599) | \$ | - \$ | S | - | _ | | | |
| Beginning Balance | s | 2,606,400 | \$ | 1,768,719 | \$ | 1,151,600 | \$ | 1,076,487 | \$ | 1,084,664 | \$ | 1,141,024 \$ | 5 | 1,074,799 | \$ | 1,006,917 | \$ | 1,064,745 |
| Total Net Income | | (187,441) | | (245,912) | | 153,894 | | 68,779 | | 195,376 | | 50,150 | | 48,605 | | 49,432 | | 762 |
| Misc Transfers/Costs | | (650,240) | | (371,207) | | (229,007) | | (60,602) | | (139,016) | | (116,375) | | (116,487) | | 8,396 | | 8,271 |
| Ending Fund Balance | S | 1,768,719 | \$ | 1,151,600 | \$ | 1,076,487 | \$ | 1,084,664 | \$ | 1,141,024 | \$ | 1,074,799 \$ | \$ | 1,006,917 | \$ | 1,064,745 | S | 1,073,778 |

Base Assumptions:

Revenue Assumptions

Bay Bridge flat in FY 2012 then .50% per year until 43.3 million vehicle cap, then flat

All Other Bridges flat in FY 2012 then .50% per year growth

Interest Earnings Assumptions

Fund Balance Earnings 0.25% short term; 1.75% long term

Floating Rate Bonds 2.12% growing to 2.91%; support costs 1.0%; basis cost 0.16%

Expenses

Operating and Maintenance grow at 3% from 2009 levels

*MTC to BATA transfers

** CTC adopted pmt schedule
Contingency
HBRR
Efficiency Savings

Project Description

The SFOBB ESSSP will be seismically retrofitted through the complete replacement of the existing span. The project includes construction of the Skyway portion of the bridge, which consists of two parallel concrete structures, each approximately 1.3 miles in length; an SAS bridge consisting of a 510-foot tower supporting a bridge deck connecting the Skyway to Yerba Buena Island Transition Structures (YBITS) on YBI and on the east end of the bridge connecting the bridge to the toll plaza area, and the demolition of the existing east span after the new bridge is completed.

The SFOBB ESSSP now consists of 21 contracts. Construction of the Oakland Touchdown (OTD) Approach Structures and the YBITS has been split into multiple contracts to facilitate construction flow and to accelerate some elements of work off the critical path for the completion of the new east span.

Current Status

The current 21 contracts for SFOBB ESSSP are identified below:

Fourteen contracts are complete:

- Interim Retrofit (Existing Bridge)
- East Span Retrofit (Existing Bridge)
- Pile Installation Demonstration
- OTD Geofill
- YBI Archaeology
- United States Coast Guard (USCG) Road Relocation on YBI
- SAS Land Foundations (W2)
- YBI Electrical Substation
- OTD Submarine Cable
- Skyway
- SAS Marine Foundations (E2/T1)
- Stormwater Treatment Measures
- OTD Contract 1
- South/South Detour

Two contracts are under construction:

- SAS (78% complete as of September 2011)
- YBITS 1 (30% complete as of September 2011)

One contract is being advertised:

• OTD Contract 2 (construct eastbound superstructure, landscaping, and maintenance road)

Four contracts are in design:

- OTD Portions of the Corridor Electrical Contract: This scope will be included within other contracts within the east span corridor.
- YBITS No.2
- YBITS No.3 Landscape contract
- Existing Bridge Demolition

Project Timeline/Implementation Plan

As of September 30, 2011, it is anticipated that the new SFOBB East Span will be open to traffic by 2013. The opening of the new WB and EB lanes of the SFOBB ESSSP involves three segments: YBITS, SAS, and OTD. These three segments are being built and administered by three separate contracts with different construction completion dates. Construction activities on YBITS 2 and OTD No. 2 contracts will continue beyond the opening of the new East Span. For the YBITS 2 contract, these construction activities are to build the new EB on-ramp to Route 80, and to restore the local roads on YBI that are impacted by the construction of the new East Span. For the OTD No. 2 contract, these construction activities are to remove the EB Route 80 Detour, to construct the remaining bike path, construct Caltrans Maintenance road, and landscape the OTD area. See *Table 4 – SFOBB ESSSP Baseline and Projected Schedule Summary*.

The demolition of the existing East Span is scheduled to be completed in 2015, approximately two years after the new East Span is open to traffic; thereby, the delivery of the TBSRP.

Table 4 - SFOBB ESSSP Baseline and Projected Schedule Summary.

| Contract | AB 144/SB 66 Baseline Project Completion Date | Approved Changes (Months) | Current Approved Schedule | 3rd Quarter 2011 Forecast Project Completion date | Variance (Months) |
|-----------------------------------|---|---------------------------|---------------------------------|---|----------------------|
| Skyway | April 2007 | 8 | December 2007 | December 2007 | |
| SAS Marine Foundation | June 2008 | (5) | January 2008 | January 2008 | |
| SAS Superstructure | March 2012 | 29 | August 2014 | August 2014 | |
| YBI Detour | July 2007 | 41 | December 2010 | October 2010 | (2) |
| YBI Transition Structures (YBITS) | November 2013 | 12 | November 2014 | March 2015 | 4 |
| YBITS 1 | | | September 2013 | December 2013 | 3 |
| YBITS 2 | | | November 2014 | March 2015 | 4 |
| Oakland Touchdown | November 2013 | 12 | November 2014 | November 2014 | |
| OTD1 | | | June 2010 | June 2010 | |
| OTD 2 | | | November 2014 | November 2014 | |
| Submarine Cable | | | January 2008 | January 2008 | |
| Existing Bridge Demolition | September 2014 | 12 | September 2015 | December 2015 | 3 |
| Stormwater Treatment Measures | March 2008 | | March 2008 | March 2008 | |
| Westbound Open | September 2011 | 27 | December 2013 | December 2013 | |
| Eastbound Open | September 2012 | 15 | December 2013 | December 2013 | |

For additional information regarding the Implementation Plan, see *Attachment 1 - San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs – 2011 Third Quarter Project Progress and Financial Update.*

Cost Estimate

TBSRP Reporting

The Department, together with the TBPOC, uses three primary measures to monitor and report the financial status of the SFOBB ESSSP: the Baseline Budget established by California AB 144 of 2005, the current TBPOC Approved Budget, and the current Forecast Cost.

Baseline Budget

The budget established when AB 144 became law in July 2005 was the baseline budget.

Forecast Cost

The TBSRP forecast cost at completion depends on the quality of plans, contractor's performances, construction administration and effectiveness of implementing risk mitigation measures. Consequently, the Department has undertaken a probabilistic assessment of the expected program cost at completion. Quantitative cost risk analyses associated with TBSRP Capital Outlay (CO) and Capital Outlay Support (COS) are reported in the Quarterly Risk Management Report (QRMR) and considered in the TBPOC's cost forecasts.

Cost History

The AB 144/SB 66 baseline budget for the SFOBB ESSSP was \$5.487 billion with \$959.3 million in COS and \$4.527 billion in CO. As of this report, the TBPOC approved budget changes to some of the SFOBB ESSSP contracts. The TBPOC current approved budget was \$6.291 billion, an increase of \$804 million from the AB 144/SB 66 baseline budget. The Third Quarter 2011 forecast of the SFOBB ESSSP was \$6.451 billion. The increase will be funded by redirected project savings from the Richmond-San Rafael Bridge, savings from other completed contracts within the East Span, and from the program contingency. Currently, the TBPOC approved budget for the Toll Bridge Program is \$9.082 billion which includes \$397 million from AB 1175. See *Table 5 - Toll Bridge Seismic Retrofit Program, Cost History*.

Table 5 - Toll Bridge Seismic Retrofit Program, Cost History (\$ in Millions)

| Contract | AB 144/ SB 66 Budget | Approved Changes | Current Approved Budget | 3rd Quarter 2011 Forecast | Variance |
|--------------------------------|-------------------------|---------------------|--|---------------------------------|-----------|
| ā | b | c | $\mathbf{d} = \mathbf{b} + \mathbf{c}$ | f | g = f - d |
| Completed Projects | | | | | |
| Benicia-Martinez | 177.8 | 0.0 | 177.8 | 177.8 | 0.0 |
| Carquinez | 114.2 | 0.0 | 114.2 | 114.2 | 0.0 |
| San Mateo-Hayward | 163.5 | -0.1 | 163.4 | 163.4 | 0.0 |
| Vincent Thomas | 58.5 | -0.1 | 58.4 | 58.4 | 0.0 |
| San Diego-Coronado | 103.5 | -0.9 | 102.6 | 102.6 | 0.0 |
| SFOBB West Span | 307.9 | -5.7 | 302.2 | 302.2 | 0.0 |
| Richmond-San Rafael | 914.0 | -97.5 | 816.5 | 816.5 | 0.0 |
| SFOBB West Approach | 429.0 | 39.7 | 468.7 | 457.1 | -11.6 |
| Ongoing Projects | | | | | |
| Antioch | | 101.0 | 101.0 | 85.9 | -15.1 |
| Dumbarton | | 148.7 | 148.7 | 145.4 | -3.3 |
| SFOBB East Span | 5,486.6 | 804.1 | 6,290.7 | 6,450.7 | 160.0 |
| Capital Outlay Support | 959.3 | 218.0 | 1,177.3 | 1,275.1 | 97.8 |
| Capital Outlay | 4,527.3 | 586.1 | 5,113.4 | 5,175.6 | 62.2 |
| Skyway | 1,293.0 | -38.9 | 1,254.1 | 1,245.2 | -8.9 |
| SAS Superstructure | 1,753.7 | 293.1 | 2,046.8 | 2,085.6 | 38.8 |
| SAS E2/T1 Foundations | 313.5 | -32.6 | 280.9 | 278.6 | -2.3 |
| YBI South/South Detour | 131.9 | 360.9 | 492.8 | 482.8 | -10.0 |
| YBI Structures | 299.3 | -51.5 | 247.8 | 308.4 | 60.6 |
| YBITS 1 | | | 185.5 | 226.8 | 41.3 |
| YBITS 2 | | | 59.0 | 78.3 | 19.3 |
| YBITS 3 | - | | 3.3 | 3.3 | 0.0 |
| Oakland Touchdown | 283.8 | 55.2 | 339.0 | 333.9 | -5.1 |
| OTD Submarine Cable | | | 9.6 | 9.6 | 0.0 |
| OTD Westbound | | | 212.0 | | -8.7 |
| OTD Eastbound | | | 62.0 | 58.1 | -3.9 |
| OTD2 Detour | | | 51.0 | 58.5 | 7.5 |
| OTD Electrical Systems | | | 4.4 | 4.4 | 0.0 |
| Existing Bridge Demolition | 239.2 | -0.1 | 239.1 | 244.3 | 5.2 |
| Stormwater Treatment Measures | 15.0 | 3.3 | 18.3 | 18.3 | 0.0 |
| East Span Completed Projects | 90.4 | 0.0 | 90.4 | 90.4 | 0.0 |
| Right-of-Way and Environmental | | | | 20.1 | |
| Mitigation | 72.4 | 0.0 | 72.4 | 80.4 | 8.0 |
| Other Budgeted Capital | 35.1 | -3.3 | 31.8 | 7.7 | -24.1 |
| Miscellaneous Program Costs | 30.0 | 0.0 | 30.0 | 30.0 | 0.0 |
| Subtotal TBSRP (CO and COS) | 7,785.0 | 989.2 | 8,774.2 | 8,904.2 | 130.0 |
| Net Programmatic Risks | | 0.20.20.32.00.00 | | 93.2 | 93.2 |
| Program Contingency | 900.0 | -592.2 | 307.8 | 84.6 | -223.2 |
| TOTAL | 8,685.0 | 397.0 | 9,082.0 | 9,082.0 | 0.0 |

Note: Details may not sum to totals due to rounding effects.

Summary of Significant Cost Change

The TBSRP Quarterly Report includes a discussion of the status of TBSRP projects and financial information consisting of baseline costs and forecast costs. The TBSRP Quarterly Report currently includes a discussion of risks and the adequacy of Program Contingency provided by Risk Management.

Caltrans continuously evaluates project and contract cost forecasts. The forecast as of September 30, 2011, the AB 144/SB 66 baseline budget and the TBPOC approved budget are shown in *Table 5 - Toll Bridge Seismic Retrofit Program, Cost History*.

The significant cost changes since AB 144/SB 66 became law are:

- During the first and second quarters of 2011, the TBPOC approved a series of Contract Change Orders (CCO) for the YBITS1 contract. The TBPOC approved CO budget was \$185.5 million, an increase of \$41.5 million above the original budget of \$144 million.
- To mitigate any potential schedule risk, it was proposed that the OTD2 Detour be built in advance (in 2011) rather than have it built later under the OTD2 contract. In the first quarter of 2011, the TBPOC approved the budget to advance the construction of the OTD2 Detour. The approved CO budget for the OTD2 Detour is \$51 million and the approved COS budget is \$15 million.
- In the third quarter of 2010, the TBPOC approved a revised CO budget for the SAS. The additional \$293 million will facilitate the execution of significant change orders to resolve outstanding contract issues and to provide incentives for accelerating the opening of the new bridge. The revised budget is \$2.047 billion.
- A decrease of \$39 million in the budget for the Skyway contract due to savings after contract closeout. The construction was completed in 2008.
- A decrease of \$33 million in the budget for the SAS Marine Foundation (E2/T1) contract due to savings after contract closeout. The construction was completed in 2008.
- In June 2008, the TBPOC approved a number of changes to the YBI South/South Detour (SSD) contract to better integrate the detour work into the current project schedule and to reduce overall project risks. These changes will mitigate risks related to the tie-in of the detour viaduct to the existing viaduct as well as mitigate the overall schedule risks. The current TBPOC approved contract budget is \$492.8 million, an increase of \$361 million over the AB 144/SB 66 baseline budget.

All of the approved cost increases discussed above can be funded from a combination of savings from closeout contracts (Richmond-San Rafael, Skyway, and SAS Marine Foundation, OTD1, South-South Detour), and also from the program contingencies.

For additional information, please refer to *Appendix B - TBSRP East Span Only AB 144/SB66 Baseline Budget, Forecasts, and Expenditures through September 30, 2011*, pages 60 - 62 of *Attachment 1 – San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs, 2011 Third Quarter Project Progress and Financial Update.*



SFOBB ESSSP Risk Management

Caltrans continues to implement comprehensive risk management on all SFOBB ESSSP contracts in accordance with AB 144. Currently, Caltrans and BATA have embarked on an initiative to manage risk jointly. Risk response efforts continue to focus on encouraging responsive bids for future contracts and mitigating the estimated cost and schedule impacts of identified risks. Updates of these risk management activities are included in *Attachment 1* - *San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs, 2011 Third Quarter Project Progress and Financial Update.*

Cost and schedule risk management activities are ongoing for all contracts. The "bottom line" of cost risk analysis is whether the Program Reserve remains adequate to cover project risks. AB144 requires Caltrans to regularly assess the adequacy of the Program Reserve.

AB 144 set a \$900 million Program Reserve (also referred to as the Program Contingency). The TBPOC approved Program Contingency is at \$308 million as of the end of the third quarter 2011. See *Table 5 - Toll Bridge Seismic Retrofit Program, Cost History*.

Each contract has a contingency allowance within its budget. The sum of these contingency allowances is compared to the total of capital outlay, capital outlay support and program-wide risks. Any excess of the risks over the contingency allowances represents a potential draw on the Program Contingency (the reserve). As of the end of the third quarter 2011, the potential draw on Program Contingency ranged from about \$110 million to \$300 million, as shown in *Figure 1 – Potential Draw on Program Contingency*.

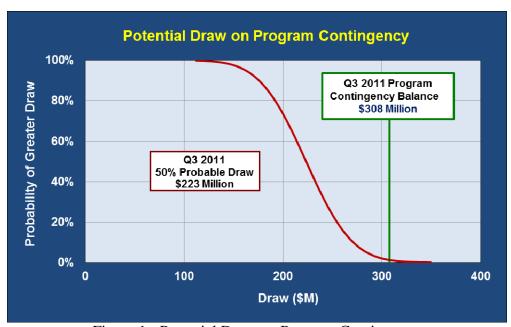


Figure 1 - Potential Draw on Program Contingency

The Program Contingency is currently sufficient to cover the cost of identified risks.

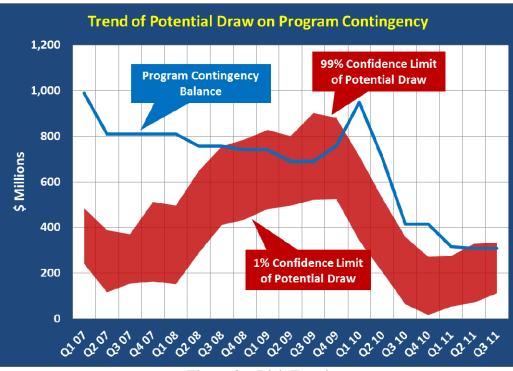


Figure 2 – Risk Trend shows the risk trend since 2007.

Figure 2 – Risk Trend

The solid area depicts the range of the total cost of all capital outlay, capital outlay support and program-wide risks. Total Contingency is the sum of remaining contingency allowances of the contracts plus the balance in the Program Contingency.

Since the 2010 Financial Update, the risk cost range remained constant through the first quarter 2011. The addition of the Oakland Touchdown Detour (OTD2 Detour) to the TBSRP in the first quarter 2011 had a minor impact on the risk range but its cost reduced the Program Contingency by about \$100 million. However, the total contingency is sufficient to cover the cost of identified risks.

Risk Management Milestones

Construction of the OTD1 and South-South Detour contracts is complete. For both contracts, the risk management team has assessed risks since early 2006. With respect to the OTD1 contract, the risk management team initially projected a final cost range of \$200 – 225 million, the original budget established when the contract was awarded in 2007 was \$225.6 million. Subsequently, the TBPOC revised the budget to \$212 million. Several years later, with prudent risk responses, the actual cost at completion was within the approved budget. The final cost was \$203.3 million and the savings will be returned to the Program Contingency.

Aggressive planning for the dismantling work of the existing East Span is underway. Project scope is being refined and an assessment to select the most prudent and efficient procurement strategy for the dismantling work is being performed. Development of project plans, specifications, schedule, and cost is ongoing. In concert with this effort, the risk management



team will be updating the risk registers for the dismantling work. A comprehensive quantitative cost and schedule risk assessment was completed and the results were incorporated in the Program's quantitative cost analysis.

Major Risk Responses

Risk identification, updating and mitigation activities are ongoing on all contracts in the project.

1. Changes to SAS Schedule

The SAS contractor submitted an updated schedule that meets the TBPOC's milestones for opening the bridge in 2013. However, the contractor's schedule does not incorporate a milestone for turning over the Hinge K work area to the YBITS1 contractor for completion of the Hinge K closures. This potentially placed the YBITS1 contract on the critical path for bridge opening, possibly extending it by several months. The risk management team mitigated this schedule risk by re-sequencing YBITS1 and SAS contract activities. Discussions are underway to finalize this coordination issue between the SAS and YBITS1 contractors.

2. Fabrication and Erection of SAS Deck and Tower

The fabrication of SAS deck and tower sections in China concluded in the third quarter 2011, within our risk cost projections.

3. SAS Cable Installation

The cable system, the next major activities on the critical path to bridge opening, includes installing and compacting the cable, attaching the cable bands and suspenders, wrapping the cable, painting the cable and suspenders, and installing the cable electrical systems. The Cable Erection Risk Management team has been meeting for the past three years to resolve potential cable issues and many of their recommendations have been implemented, resulting in a reduction of many risks.

4. YBITS/SAS Hinge Closure Construction Staging

After the risk management team elevated concerns about coordinating the construction activities of the two contractors at the Hinge K area after load transfer, the coordination effort was expanded to include all construction activities in the area. The goal is to merge the construction activities of both contracts into one schedule and use it to plan the work.

5. Bridge Opening

The corridor schedule risk analysis in the third quarter of 2011 indicates about a two-month reduction in the 50% probable schedule risk to bridge opening. The reduction is due largely to completion of OBG fabrication in China, and an early start of installing cable system temporary works. The risk associated with cable system installation, load transfer, and the completion of corridor systems required for bridge opening have not changed substantially. Teams are actively engaged in each of these areas to mitigate the risks to the greatest extent possible.

Summary

The enactment of AB 144 provides the financing necessary to complete the TBSRP as quickly as possible. The bill required the Department and BATA to amend the cooperative agreement to incorporate certain oversight and control responsibilities of each agency. The bill also required the formation of a Toll Bridge Program Oversight Committee, comprised of the Director of the Department, the Executive Director of the BATA, and the Executive Director of the CTC.

All of these requirements have been met. In addition, AB 144 specifies BATA has financial control of the program while the Department has the responsibility for construction. The bill provides that any further cost increases must be paid by BATA.

BATA has the authority to increase tolls to fund these potential cost increases, if necessary. The bill gives BATA control of all three existing dollars and the new fourth dollar imposed on January 1, 2007.

The following attachment incorporated by reference to this annual update:

Attachment 1 - San Francisco Bay Area, Toll Bridge Seismic Retrofit and Regional Measure 1 Programs, 2011 Third Quarter Project Progress and Financial Update.



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4a

Item - Program Issue

Commemorative Stamp and Coin Proposal

Recommendation:

APPROVAL

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

The TBPOC is being asked to review and approve a proposal to the Citizens' Stamp Advisory Committee and Citizens' Coinage Advisory Committee for a commemorative stamp and coin honoring the new San Francisco-Oakland Bay Bridge, which is scheduled to open in 2013. We meet the criteria for the coin and stamp under these main subjects:

- 1. Significant impact on American history or culture.
- 2. Events of historical significance.
- 3. Widespread national appeal and significance.

At the opening of the original bridge in 1936 a silver half-dollar coin was issued. Similarly, our goal is to immortalize the new Bay Bridge on legal tender currency issued by the U.S. Mint and a U.S. Postal stamp at the time of the opening of the new East Span.

Generally, proposals are submitted 3 years prior to the issue date; therefore it is urgent that they are sent promptly for consideration.

Attachment(s):

- 1. Letter to the Citizens' Stamp Advisory Committee
- 2. Letter to the Citizens' Coinage Advisory Committee



THE SAN FRANCISCO-OAKLAND BAY BRIDGE SEISMIC SAFETY PROJECTS

CAITRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION

311 Burma Road Oakland, CA 94607

January 5, 2012

Citizens' Stamp Advisory Committee c/o Stamp Development U.S. Postal Service 475 L'Enfant Plaza SW, Room 3300 Washington, DC 20260-3501

Dear Citizens' Stamp Advisory Committee,

We are writing to propose a commemorative stamp honoring the new San Francisco-Oakland Bay Bridge, which is scheduled to open in 2013. This is more than an upgrade to one of the country's busiest bridges; it is an epic transformation into a global icon, featuring some of the most cutting-edge and innovative engineering, construction and seismic technology. Because of the project's significance to the Bay Area, the State of California and the nation at large, we believe a commemorative stamp would be an ideal tribute.

Rebuilding the Bay Bridge is a monumental endeavor in terms of the challenges we have overcome and the herculean engineering and construction feats that have been accomplished. This \$6.3 billion dollar project is currently the largest public infrastructure project in the United States of America. The Bay Bridge retrofit has been a powerful economic engine, generating approximately 126,000 new jobs.

One signature element transforms the Bay Bridge into a new global icon – the Self-Anchored Suspension Span (SAS). The SAS component is the largest bridge of its kind anywhere in world (2,078 feet), one of many firsts. The bridge's distinctive and asymmetrical design, as well as sweeping and graceful aesthetics, will give the new East Span a unique silhouette.

Building this world-class bridge is a global effort—with components being manufactured domestically and overseas. The Bay Bridge project was honored at the 2010 World Expo in Shanghai, the largest world's fair in history, as a public safety project incorporating technological innovation, environmental consciousness and international teamwork. The uniqueness and significance of this project has also caught the attention of the national and international media with several television documentaries already produced.

For more information about the San Francisco-Oakland Bay Bridge Seismic Safety Projects, please visit BayBridgeInfo.org.

We thank you for your consideration.

Steve Heminger TBPOC Chair, Executive Director, Bay Area Toll Authority

Bimla Rhinehart
TBPOC Vice-Chair, Executive Director, California Transportation

Malcolm Dougherty Acting Director, Caltrans



THE SAN FRANCISCO-OAKLAND BAY BRIDGE SEISMIC SAFETY PROJECTS

CAITRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION

311 Burma Road Oakland, CA 94607

January 5, 2012

Citizens Coinage Advisory Committee 801 9th Street, NW Washington, DC 20220

Dear Citizens' Coin Advisory Committee,

In 1936, to mark the opening of the original San Francisco-Oakland Bay Bridge, Congress authorized the issue of 200,000 silver commemorate half dollars.

We are writing to propose a commemorative coin honoring the new San Francisco-Oakland Bay Bridge, which is scheduled to open in 2013. This is more than an upgrade to one of the country's busiest bridges; it is an epic transformation into a global icon, featuring some of the most cutting-edge and innovative engineering, construction and seismic technology. Because of the project's significance to the Bay Area, the State of California and the nation at large, we believe a commemorative coin would be an ideal tribute.

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We thank you for your consideration.

Steve Heminger TBPOC Chair, Executive Director, Bay Area Toll Authority

Bimla Rhinehart TBPOC Vice-Chair, Executive Director, California Transportation

Malcolm Dougherty Acting Director, Caltrans



TO: Toll Bridge Oversight Committee (TBPOC) DATE: December 28, 2011

FR: Mike Forner, Principal Construction Manager, Caltrans

Jason Weinstein, Senior Program Coordinator, BATA

RE: Agenda No. - 4b

Item – Program Issues

BATA Light Pole Contract – Additional Funds

Recommendation:

APPROVAL

Cost:

BATA 007: Additional Funding of \$2,000,000 (Not to Exceed)

Schedule Impacts:

N/A

Discussion:

In December 2009, BATA allocated \$20 M for the procurement of the light poles for the new East Span of the SFOBB. In September 2010, the BATA Oversight Committee approved a BATA contract with Valmont Industries, Inc. to furnish 253 light poles for the SFOBB East Span corridor. The total amount authorized was \$3,822,909, comprised of a \$2,888,909 purchase order, \$434,000 in contingency funding and \$500,000 in supplemental funding. Delivery of the poles was specified to occur from September 2011 through September 2012.

During the shop drawing review process numerous modifications were made to the poles due to:

- accommodating the existing as-built conditions of the foundations,
- constructability issues with the fabrication of the pole's starter wall,
- architectural issues with welded joints and painting, and
- fixture attachment details along with other miscellaneous changes to the plans.

These modifications have resulted in additional costs to Valmont both in direct fabrication costs and in delay cost associated with material escalation and idle shop time due to the approximately 6-month delay to the fabrication resulting from the modifications. In addition to the modifications to the poles, 20 additional poles have been requested to be added to this project.

Based on preliminary cost information provided by Valmont, it is anticipated that the additional cost resulting from the changes and delays to the pole fabrication, and the



additional poles should be approximately \$2,500,000 (see Cost Summary Matrix attachment). Of this cost, \$500,000 can be funded with the supplemental funding approved by BATA in September 2010. The approximately \$2,000,000 remaining is being requested to be paid by additional funding to the contract. If approved, this would leave intact the original contingency funding of \$434,000 for any future contract costs. Pending TBPOC approval, BATA staff will prepare an item for the February 2012 BATA Oversight Committee to amend the purchase order with Valmont to reflect the proposed modifications shown in the table below. Valmont has committed to a revised March 2012 through September 2012 delivery schedule which will have no impact on the planned Seismic Safety Opening.

The corridor risk management plan includes a 50% probable amount of \$5M to address MEP compatibility issues across contracts and to cover variances from \$34.2 M estimate from November 2008 (see SFOBB MEP Integration Strategy attachment). However, given the contingencies that were included in the 34.2 M estimate, this contract change order can be funded from this contingency. It is not anticipated that funds from risk management will be needed at this time.

The table below illustrates the breakdown of the \$20 M to be used for furnishing the light poles and light fixtures.

| | Item | Current | Proposed | Delta |
|----------------|----------------|-----------------|-----------------|------------------|
| | | Estimate | Modification | |
| | Bid Items and | \$2,888,909.33 | \$5,388,909.33 | \$2,500,000.00 |
| | CCO's | | | |
| T i alat | Light Pole | \$434,000.00 | \$434,000.00 | \$0.00 |
| Light Poles | Contingency | | | |
| roies | Supplemental | \$500,000.00 | \$0.00 | (\$500,000.00) |
| | Work | | | |
| | Subtotal | \$3,822,909.33 | \$5,822,909.33 | \$2,000,000.00 |
| Liabt | Light Fixtures | \$13,500,000.00 | \$13,500,000.00 | |
| Light | Light Fixture | \$2,677,090.67 | \$677,090.67 | (\$2,000,000.00) |
| Fixtures | Contingency | | | |
| | Total | \$20,000,000.00 | \$20,000,000.00 | |

Attachment(s):

- 1. Light Pole Modification Cost Summary Matrix
- 2. SFOBB MEP Integration Strategy

| | | | | | | Estimated (| | |
|--------|--|--|---|--------------|------------|-----------------------|----------------|----------------------|
| Item # | Description of change / Issue | Reason for change | Impact from Change | Hours / pole | # of poles | Estimated total hours | Hourly Rate | Estimated Total Cost |
| 1 | Pole shaft to starter wall connection and center hole size | shaft to the starter wall and starter wall to base | Increased the thickness of the starter wall plates by about 30%, therefore Starter wall seam weld quantities increased drastically, requiring wall to be even thicker so that they can be machined to meet the esthetics and design thickness requirements. | 12 | 217 | 2604 | \$190 | \$494,760 |
| 2 | Hand welding of the channel (original length) to meet the aesthetic requirements & Changes to channel H detail at the bottom of the pole | Machine welding would have caused waves within the contract tolerance but not acceptable aesthetically. In Addition the changes to the detail at the bottom of channel was made by the designer for strength. | Additional labor to hand weld the seams, then grind and buff. The H section detail at the bottom of the channel has to be built separately, welded, grind & buff. | 10 | 217 | 2170 | \$190 | \$412,300 |
| 3 | Increased channel length, from below the fixture to all the way to the top of the pole. | Requested by Architect (negative space between the fixtures) | Added 30% length to the channel, all hand weld, grinded and buffed | 7 | 217 | 1519 | \$190 | \$288,610 |
| 4 | Hand grinding and buffing of the circumferential joints and the entire pole (buffing and painting issues) Grinding and buffing the circumferential joints was required per contract, but as a result of this, the entire length of the pole will be buffed to have a consistent texture | | | 5 | 217 | 1085 | \$190 | \$206,150 |
| 5 | Weight increases (base plate, starter wall & shafts). The cost also Includes escalation cost for steel for all poles. | Non-standard base plate. Escalation cost of steel. | Base plate thickness had to increase to the next standard nominal size. For Center hole increase see item 1. | | | | | \$100,000 |
| • | | Thicker starter walls Shaft thickness increase to reduce one circumferential joint to improve appearance. | Added weight One joint was eliminated on 20M, 17.5M and 12M poles, resulted in increase shaft thickness. | | | | | •, |
| 6 | Light fixture attachments details | Not part of the original pole contract. Changes not final until # of fixtures were decided. | Added Handholes & attachment holes for fixtures | 5 | 253 | 1265 | \$190 | \$240,350 |
| 7 | Additional R&D to help with the design changes | Needed input from Valmont to make design changes that are constructible | Required Valmont Engineering staff's time to modify plans | | | | | \$75,000 |
| 8 | Coordination with Musco (fixture manufacturer) & fabrication of additional prototypes | The fixtures were not part of the original pole contract. | Required time from Valmont engineering staff to coordinate with Musco Lighting and also to make additional prototypes. | | | | | \$60,000 |
| 9 | Misc Minor changes, lifting points, aluminum hand hole covers | Per contact lifting points not adequate for poles with fixtures. The original steel covers for handhole would have created rust lines at hinges. | Added fabrication cost for the minor changes | 2 | 253 | 506 | 190 | \$96,140 |
| 10 | Schedule change & Shop window | Original contract 18 months, now only 12 months, delay start due to above changes. Original contract 1st delivery Sep 2011, Now revised to May 2012 | Shop impact due to delay and also due to compressed schedule | | | | | \$200,000 |
| 11 | Credit for reducing one circumferential joint on 12M, 17.5M and 20M poles | Designer approved a change request to fabricate the shafts in one piece on 12M poles instead of 2 sections and 2 sections for 17.5 & 20M poles instead of 3 sections | Credit for less welding | -6 | 93 | -558 | 190 | (\$106,020) |
| 12 | 20 additional poles (16 for future City Ramps and 4 for landing at YBI-2 Project) | Buying 16 poles for future City ramps and 4 poles for the landing area of YBI-2 project for consistency. | City will reimburse BATA for the 16 poles. The other 4 poles are part of Bay Bridge project. | | 20 | | 11000 | \$220,000 |

| Estimated Totals | | 35 | | 8591 | | \$2,287,290 |
|------------------|--------------------------------------|----|--|------|--|-------------|
| | Sales Tax (9.5%) | | | | | |
| | Total Estimated cost for all changes | | | | | \$2,504,583 |

SFOBB MEP Integration Strategy (CONFIDENTIAL)

1-5-2012

| | | <u> </u> | | | | |
|---------|---|---|----------------------------|---|-----------------------------------|---|
| | Segregation of Work | Nov 2008 Estimated Cost | May 2011 Estimated Cost | January 2012 Estimated Cost | Executed Contracts / CCOs to Date | Comments |
| | | | | | | |
| A | Furnish Light Poles (BATA Contract) | | | | | |
| ITEM 1A | Furnish Light Poles | \$15,300,000.00 | \$4,000,000.00 | \$5,822,909.33 | \$2,888,909.00 | The fixtures were eliminated from this contract and added to Item 1B below. |
| ITEM 2A | Storage Cost | \$1,500,000.00 | \$500,000.00 | \$200,000.00 | | |
| | Contingency (Included in the above) | | | | | |
| | | | | | | |
| | Total Estimated Cost To Furnish Light Poles (BATA Contract) | \$16,800,000.00 | \$4,500,000.00 | \$6,022,909.33 | \$2,888,909.00 | |
| В | MEP Integration Work Installation | | | | | |
| | Install Light Poles (Skyway and OTD1), F&I LED fixture for corridor poles | \$2,000,000.00 | \$13,500,000.00 | \$13,500,000.00 | \$13,466,929.00 | Fixtures were eliminated from pole contract and added to this item, more fixtures were also added. CCO 902 on YBI-1 & 167-S1 on SAS |
| ITEM 2B | Installation of MEP items eliminated from Skyway & OTD1 | \$8,000,000.00 | \$8,000,000.00 | \$8,000,000.00 | \$5,000,000.00 | CCO 110 has been issued for approx. \$5M |
| ITEM 3B | Upgrades & Revisions of the already installed components (Skyway & OTD1) | \$2,500,000.00 | \$2,500,000.00 | \$2,500,000.00 | \$1,600,000.00 | CCO 163 |
| ITEM 4B | Installation of BASE System (conduits & Cabinets within Skyway & OTD1) | \$2,000,000.00 | \$0.00 | \$0.00 | | This work is included in Item D below |
| ITEM 5B | Contingency (20%), reduced to 15% in January 2012 | \$2,900,000.00 | \$4,800,000.00 | \$3,600,000.00 | | Contingency reduced to 15% in Janary 2012 |
| | Total Estimated Cost For Installation | \$17,400,000.00 | \$28,800,000.00 | \$27,600,000.00 | \$20,066,929.00 | |
| Total | for all Light Poles & MEP Integration Work (within Skyway & OTD1) | \$34,200,000.00 | \$33,300,000.00 | \$33,622,909.33 | \$22,955,838.00 | Total of \$34.2M for Items A & B was approved by TBPOC 11-6-2008 |
| С | System Wide Testing (Entire Corridor) | | | | | |
| ITEM 1C | System wide (Entire Corridor) testing, Relay Setting, SCADA development & commissioning | \$3,000,000.00 | \$3,000,000.00 | \$3,000,000.00 | | |
| | Resolution of system wide testing issues (for entire corridor) | \$1,500,000.00 | | \$1,500,000.00 | | |
| ITEM 3C | Contingency (20%) | \$900,000.00 | | \$900,000.00 | | |
| | Total Estimated Cost Of System wide Testing | \$5,400,000.00 | \$5,400,000.00 | \$5,400,000.00 | | \$5.4M (TBPOC May 6, 2010) |
| | | | | | | |
| | Complete BASE System (Entire Corridor) | | | | | |
| ITEM 1D | Hardware (about 150 cameras, interface box and decoder for each camera / wiring) | \$3,000,000.00 | | \$3,000,000.00 | | |
| ITEM 2D | Installation cost (Camera & Hardware) | \$1,500,000.00 | | \$1,500,000.00 | | |
| | New dedicated fiber line in both structures with 2 loops (installed) | \$2,000,000.00 | | \$2,000,000.00 | \$900,000.00 | CCO's 901 on YBI and 150 on SAS |
| ITEM 4D | Contingency (20%) Total Estimated Cost for BASE System | \$1,300,000.00 \$7,800,000.00 | | \$1,300,000.00 \$7,800,000.00 | \$900,000.00 | Need to transfer funds from rehab for this work |
| | Total for all above items (Including BATA Contract) | \$47,400,000.00 | \$46,500,000.00 | \$46,822,909.33 | \$23,855,838.00 | |



TO: Toll Bridge Oversight Committee (TBPOC) DATE: December 28, 2011

PMT,

FR: Tony Anziano, Toll Bridge Program Manager, CT

Stephen Maller, Deputy Director, CTC

Andrew Fremier, Deputy Executive Director - Operations, MTC/BATA

RE: Agenda No. - 4c

Item – Program Issues

Light Pipe and Related Concepts

Recommendation:

For Information Only

Cost:

YBITS1 CCO: TBD (for OTD, Skyway & YBITS Structures)

SAS CCO: TBD (for SAS Structure)

Schedule Impacts:

N/A

Discussion:

The original Light Pipe concept that was shown on the drawings as "Future Light Pipe" was based on 8" clear polycarbonate tubing with a light source at frequent intervals to provide a continuous line of light along the edge of the deck. That lighting option created concern regarding both daytime aesthetics due to its industrial appearance and high initial installation cost, as well as, frequent maintenance requirements and high energy cost. A study was done in 2008 to review the existing plans for the light pipe and what infrastructure had been installed in the field to date. The study was also to identify concerns with respect to completing the design and develop a cost estimate for the light pipe installation. This item was presented to the TBPOC in February of 2008. The range of cost at that time was \$29.1 M to \$40.7 M for installation. The range of cost is due to differences in light fixture options and potential installation challenges. This estimate did not include ongoing maintenance costs.

Newly realized LED technology has now made the original concept obsolete and has provided a viable solution for the providing linear lighting along the edge of the new bridge on both sides with a much improved daytime appearance, low maintenance costs (10-year warranty covers parts & labor) and a very low energy use. The PMT reviewed this technology in September 2011 and requested a test be performed. Subsequently, a 200





foot segment of the LED light pipe was tested and viewed by PMT members and Clive Endress on November 30th, 2011. (See attached photograph and simulated photograph)

The demonstration performed indicates that an LED light pipe is a viable option for linear lighting of the new bridge. The light pipe could be furnished and installed before the opening of the new bridge as per the schedule shown attached matrix. Given the timing required for fabrication and installation prior to the Seismic Safety Opening of the bridge, staff will present costs for approval at the February 2012 TBPOC meeting.

Painting the Skyway White Concept

A complimentary discussion to the light pipe installation is painting portions of the concrete Skyway white to provide "a clean white line from shore to shore." An initial range for the rough order-of-magnitude for this work is \$12 M to \$18 M. If the work is done by CCO the cost can be expected to be on the high side of this range. Additionally, initial estimates for the annual maintenance costs are approximately \$600 K annually starting after 15 years. A detailed cost estimate is being prepared for the initial painting and maintenance costs and will be presented for discussion and approval at the February 2012 TBPOC meeting.

Update on Other Architectural Items

On December 7, staff met with BCDC to discuss a number of the architectural concepts previously presented the TBPOC. BCDC was generally receptive of the concepts and had some good comments and suggestions to move forward as summarized below. These items below will be discussed in detail at the February 2012 TBPOC meeting.

E1 Reuse Concept – BCDC believed that there was some merit to saving the pier 2 ft above grade, but had questions on access. Staff is taking the next steps to work up pathway up to E1 from Yerba Buena Island and will follow up with discussions with Caltrans, the City of San Francisco, and the U.S. Coast Guard discuss security and access issues with making it a public space. The estimated savings for maintaining a portion of E1 is \$2 million to 4 million. A decision on this item will need to be made soon to incorporate any changes into the YBITS2/Cantilever Demolition contract by March 2012.

Existing Pier Reuse as Permit Required Shore Bird Habitat Concept

BCDC suggested that staff discuss relocation of the habitat additional avian biologists to determine if birds could safely use the proposed existing piers near the Oakland touch down. Staff will be arranging to meet with the biologists. The estimated savings for reusing existing piers is \$1 million to 2 million. A decision on this item is not critical at this time as the 504/288 Demolition contract will be advertised in 2014.



Gateway Park Salvage Concepts

On salvaging a 504' truss at Gateway Park, BCDC had concerns about its large mass given the linear nature, likely development, and access of the Park. Staff will be developing some computer wire frame models and subsequent photo simulations to put the truss in the context of Gateway Park. A decision on this item is not critical at this time as the 504/288 Demolition contract will be advertised in 2014.

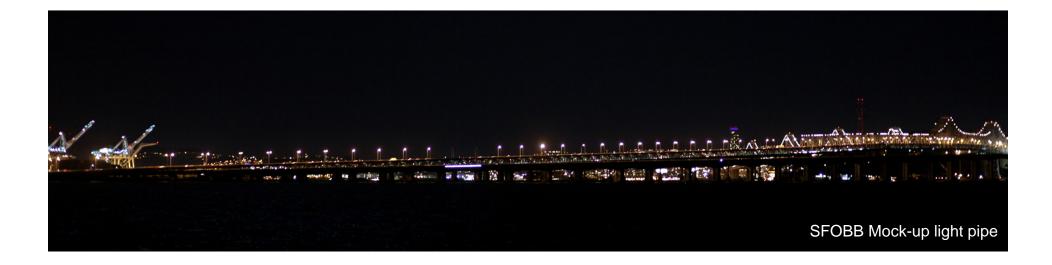
YBI Bridgehead Concepts

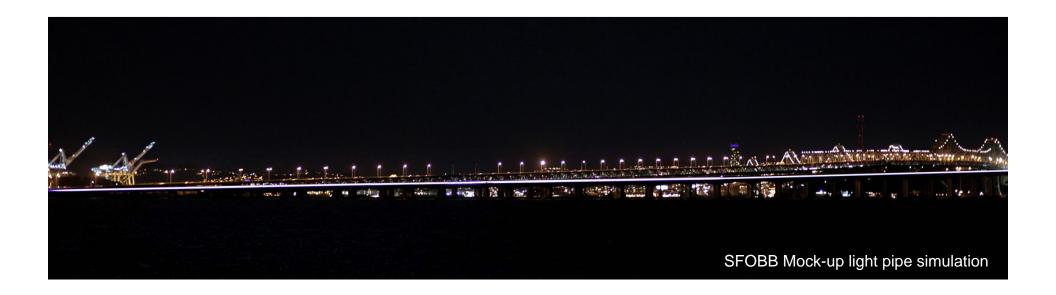
BCDC has stated that they likely do not have jurisdiction over the proposed bridgeheads, but needed clarification on their purpose and need. Staff is in the process of verifying the cost and constructability of the bridgeheads, which have been roughly estimated to cost several million dollars.

Attachment(s):

- 1) Light Pipe Demonstration Photograph
- 2) Light Pipe Schedule and Cost Matrix







SFOBB New East Span Light Pipe

| Light Pipe Furnish & Install | Material Cost | Material Cost Installation Cost | | Annual Energy Cost @ 12 hours per day | Maintenance Cost | |
|------------------------------|------------------|---------------------------------|--------------------|---|--|--|
| Before the opening | \$3.5M to \$4.5M | \$4.5M to \$5.5M | \$8.0M to \$10.0M | \$15000 / year | Full Warranty (parts & labor for 10 years) Caltrans to provide lane closure for Repair & Maintenance | |
| After the opening | \$3.5M to \$4.5M | \$12.0M to \$16.0M | \$16.0M to \$20.0M | \$15000 / year | Full Warranty (parts & labor for 10 years) Caltrans to provide lane closure for Repair & Maintenance | |

| Details of ad | Details of additional cost for installing after the opening | | | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|--|--|
| | Additional Cost | Comments | | | | | | | | |
| Night work inefficiencies | \$6.0M to \$8.0M | Working 5 hour shifts @ night vs. 8 to 10 hours during day | | | | | | | | |
| Traffic control | \$2.0M to 3.0M | Nightly lane closures for 1.5 to 2 years | | | | | | | | |
| Bike path closure | | Needed for working on south side with lane closure | | | | | | | | |
| Support Cost | \$1M | COS cost (Design & Construction) | | | | | | | | |
| Total Additional Cost | 9.0M to \$12.0M | | | | | | | | | |

| Road map with firm dates for timely installation of the light pipe before the opening | | | | | | | | | |
|---|-----------|-----------------------------------|--|--|--|--|--|--|--|
| ITEMS | Due Date | Comments | | | | | | | |
| Present to TBPOC | 1/5/2012 | | | | | | | | |
| Approval from TBPOC (Not to Exceed CCO) | 2/5/2012 | | | | | | | | |
| Design / Construction Kick-off Meeting | 2/12/2012 | Bleyco / Manuf. / Design JV / CT | | | | | | | |
| CCO Process & Concept Design | 3/12/2011 | | | | | | | | |
| Design Development & Fixture Production | 8/1/2012 | Start Delivery & Installation | | | | | | | |
| Installation Complete by | 2/1/2013 | Pending availability of all areas | | | | | | | |



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Bart Ney, Public Information Officer, Caltrans

John Goodwin, Public Information Officer, BATA

RE: Agenda No. - 4d

Item- Program Issues

Bridge Opening

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A written update on the bridge opening will be sent under separate cover prior to the meeting on January 5th.

Attachment(s):

N/A



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4e

Item- Program Issues

Toll Bridge Seismic Safety Peer Review Panel (TBSSPRP)

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the work being performed by the Toll Bridge Seismic Safety Peer Review Panel (TBSSPRP) will be provided at the January 5th meeting.

Attachment(s):

N/A



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. - 5a

Item- San Francisco-Oakland Bay Bridge Corridor Update

Recommendation:

For Information Only

Cost:

TBD

Schedule Impacts:

TBD

Discussion:

Work is ongoing across the entire length of the San Francisco-Oakland Bay Bridge East Span Seismic Replacement Project.

- o On the Self-Anchored Suspension Span Contract, the first cable strand was hauled around the bridge on December 21, 2011.
- On the Yerba Buena Island Transition Structures #1 Contract, the westbound frame 1 deck pour was completed in December16. The Yerba Buena Island Transition Structures #2 Contract is scheduled to advertise in March 2012.
- o On the Oakland Detour, substantial progress is being made on bent walls that will support the Oakland westbound widening. A 3-day upper deck bridge closure is still scheduled for President's Day Weekend to open the widening.
- o On the Oakland Touchdown #2, the contract is scheduled for bid opening on January 18, 2012.

Attached is an updated corridor schedule with a Labor Day 2013 seismic safety opening (SSO) based on the recently approved acceleration CCOs on YBITS1 and SAS.

Attachment(s):

Toll Bridge Seismic Retrofit Program - Summary Schedule (SSO)



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Steven Hulsebus, Toll Bridge Design Manager, Caltrans

RE: Agenda No. - 5b1

San Francisco-Oakland Bay Bridge Updates

Item- Yerba Buena Island Transition Structure (YBITS) No. 2

Plans, Specifications, and Estimate (PS&E)

| Recommen | dation: |
|----------|---------|
|----------|---------|

APPROVAL

| _ | | | |
|------------------|---|---|----|
| \boldsymbol{C} | _ | _ | 1. |
| | | | |

\$ 143,292,000 + \$_____bidders' stipend.

Schedule Impacts:

N/A

Discussion:

Plans, Specifications, and Estimate (PS&E) for the San Francisco-Oakland Bay Bridge Yerba Buena Island Transition Structure II contract (04-0120T1) was sent to BATA for review on August 23, 2011. We received comments on October 3, 2011. All comments have been resolved and incorporated as appropriate as of December 6, 2011.

A bidder stipend is being requested for this contract. If approved, the stipend will be incorporated into the estimate.

The contract is scheduled to meet Ready to List (RTL) on February 29, 2012 and advertise on March 26, 2012.

Attachments:

N/A



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Brian Maroney, Deputy Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5b2

San Francisco-Oakland Bay Bridge Updates

ItemYerba Buena Island Transition Structures (YBITS) No. 2

Contractor Stipend (Cantilever Deconstruction)

Recommendation:

APPROVAL

Cost:

 $3 \times $500,000 = 1.5 million

Schedule Impacts:

N/A

Discussion:

This memo is to request approval by the TBPOC for a \$500,000 stipend for each of the three lowest responsive bidders for the Yerba Buena Island Transition Structures #2 (YBITS2) contract. This contract work removes the existing cantilever and the Yerba Buena Island Detour, constructs the Yerba Buena Island eastbound on-ramp and Yerba Buena Island westbound off-ramp, and completes the bicycle-pedestrian facility on the structures over Yerba Buena Island. This contract is to be advertized in March of 2012 and bids are to be opened in July of 2012. The request is based on the unusual amount of work required to develop a quality bid, however the stipend will also draw bidders to the job. It can also be recognized that such a technique was implemented on the SAS contract to support unusual engineering work required for erection and sea transport. The outcome was successful in that the winning contractor used parts of the stipend to design, analyze, and estimate the unusual erection and sea transport, which in my opinion have gone very well and document success of such techniques.

The recommended stipend is appropriate due to the unusual characteristics of the cantilever. The overwhelming majority of Caltrans construction projects are similar to other projects that have been completed tens, if not hundreds or thousands of times.



With experience from such previous work in the construction industry there is an abundance of knowledge supporting quality bids. In the case of the cantilever, such experience and knowledge is not as available, and that is a risk that could lead to significant time delays and cost increases. The cantilever is unusually large. If compared to the 1921 Carquinez Bridge, the cantilever offers 10 traffic lanes and is double-decked while the Carquinez Bridge offered 3 lanes on a single deck. The cantilever bridge is so long, particularly the main span, the back span piers are actually in tension! The cantilever bridge was originally constructed using a carefully planned sequential erection technique that locked in loads and stresses from construction that in a first order structural analysis are not detectable. The cantilever uses a number of different steel types that are not commonly available today. During the original construction of the cantilever some materials did not meet specifications and were retested and evaluated for a kind of fit-for-purpose evaluation and accepted into the bridge construction, which leads to a need for careful review and incorporation of the original material tests into stress analyses. Recent field evaluations have detected imperfection in some eyebars. The investigating report offers information that must be considered in demand-to-capacity evaluations in the stages of deconstruction. For these and other reasons, a quality bid must be supported by quality engineering investigations and calculations. The contractor's evaluation of alternatives, schedules, and estimates will require an unusual amount of work and coordination. One important measure of success of this contract will be to initiate deconstruction during the opening ceremonies of the new bridge. In order to achieve such an exciting milestone the winning contractor must have a quality planned sequence of deconstruction based on proper construction management and engineering, which will drive the contractors to hire engineering firms and other specialty subs in support of the bid.

The \$500,000-dollar stipend is estimated to be about a third of the price of the work that Caltrans would pay if we did the work ourselves. (It should be recognized that even if we did the work ourselves, we could only guess the winning contractor's means and methods and it would be redone.) The stipend is limited to the three lowest responsive bidders to support competitive bidding, not support entities submitting bids to simply collect the stipend, and make a financial decision with a known maximum cost (i.e., \$1.5 million).

Attachment(s):

N/A



TO: Toll Bridge Program Oversight Committee DATE: December 28, 2011

(TBPOC)

FR: Mike Forner, Principal Transportation Engineer, Caltrans

RE: Agenda No. - 6a

Item- Antioch and Dumbarton Bridge Seismic Retrofit Updates

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Antioch Bridge:

- Time Elapsed: 84% (This includes 97-day time extension given under CCO 6)
- Work Completed: 90%
- Remaining contingency and supplemental funds, \$3.0 million

Update of on-going field work is as follows:

- Suspended platform installation completed at 32 of 32 total piers. Platforms removed at 22 of 32.
- Stair tower installation completed at 30 of 30 total piers. Stair towers removed at 25 of 30.
- Post-tensioning completed at 37 of 38 total piers.
- Jacking stiffeners completed at 39 of 41 total piers.
- Fabrication of seismic bearings completed for 82 of 82 total bearings.
- Installation of seismic bearings completed for 72 of 82 total bearings.
- 116 of 116 total steel column casings fabricated.
- 82 of 116 column casings welded.
- 76 of 116 column casings grouted.

TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE CATEMAS: BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION.

Memorandum

- Cross bracing fabrication and installation, 100% complete.
- Permitting agencies gave verbal approval to remove the temporary roadway before the May1, 2012 work window. The Contractor is scheduled to begin the temporary roadway removal in March, 2012. Currently reviewing the contractor's cost estimate and exploring market opportunities for disposal of the temporary roadway rock.
- The two Bay Area Security Enhancement (BASE) System antennas were removed from Pier 19 during the week of Dec. 12. One antenna will be relocated to Pier18 per the original contract plan (within 15 days), and the other antenna will be relocated adjacent to Pier 4, on a tower constructed via CCO 38, by a future BASE contract.
- The revised falsework submittal for Abutments 1 and 41 is pending. The original submittal approval, contingent upon a successful soil bearing test, failed due to excessive settlement. The Contractor has submitted a draft proposal for comments.
- The BATA-requested toll plaza paving is on hold until January, pending suitable weather and minimum temperature.

Dumbarton Bridge:

• Time Elapsed: 52%

• Work Completed: 39%

• Remaining contingency \$2.6 million

Update of on-going field work is as follows:

- Completed the pumping plant concrete, mechanical work is ongoing.
- Installation of the 36 inch drainage pipe at the NW frontage road is complete.
- 29 of the 32 deck access openings are complete. Access openings are recessed and smooth for the driving public.
- Installation of access platforms at Piers 16 thru 30 is complete. Pier 31 access platform installation is on-going.
- Concrete coring operation is complete at 15 of the 16 Bent Caps. A total of 76 -3-inch cores are required at each Bent Cap.
- Concrete has been placed at 12 of the 16 Bent Cap widening.
- Jacking frame welding is complete at 4 of 16 piers; four other locations are being worked on.
- Seismic joint mockup currently being constructed on site. Approval of the mockup will allow joint fabrication for Piers 16 and 31 to begin. Fabrication of joints is currently critical to the Memorial Day and Labor Day full-bridge closures and is being closely monitored by project staff.
- EPS bearing fabrication is ongoing, 76 out of 96 bearings have been completed. The set of 9 bearings has been tested at UCSD, December 5-9, 2011.



• Installation of the bearings at the main span piers is an ongoing issue that will be resolved by the end of next month. The Department has hired an expert to do an independent check on stresses encountered during bearing installation. The Department has installed strain gauges at varies locations of the bridge structure and performed a load test on the bridge, Sunday night, November 20th. At the present time, there are four options that are being explored and they are:

| Option | Description | Schedule Impacts | Cost Impacts |
|--------|----------------------------|------------------|----------------------|
| 0 | Contractor's Bid | 0 | 0 |
| 1 | Web Shims | 1 month | \$500K - \$1,200K |
| 2 | Web + Puck Shims | 4 months | \$1,000K - \$2,000K |
| 3 | Shims + Live Load Transfer | 12 months | \$5,000K - \$10,000K |

Attachment(s):

N/A

ITEM 7: OTHER BUSINESS

No Attachments